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# **STUDIES IN ETHNOBOTANY OF 'NATH' OF BUNDELKHAND REGION**

## **THESIS**

### **SUBMITTED TO BUNDELKHAND UNIVERSITY, JHANSI**

### **FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN BOTANY**

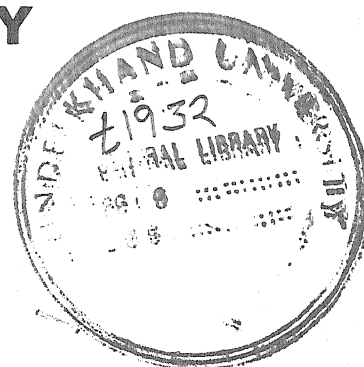
**BY**

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**2002**





*Dedicated  
to  
my parent*

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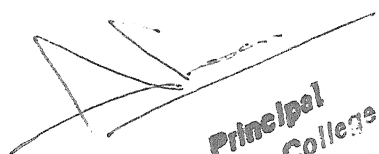
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## Certificate

Certified that -

1. The thesis embodies the work of the candidate Mr. P.K.Khare himself.
2. That the candidate worked under me for the period required under ordinance.
3. That he has put in the required attendance in this department during the period of work.

  
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## P R E F A C E

This thesis summarises the results of 4 years of studies on the ethnobotany of 'Nath' of Bundelkhand region.

The bulk of the thesis is divided in to seven chapters. In the Chapter-I, effort has been made to explain why the present problem was under taken. A brief account of social condition of 'Nath' is given in Chapter II. A brief historical review on the subject is given in Chapter III. Material collected, methodology followed and detailed physiographic account of the area of study form the contents of Chapter IV. The ethnobotanical description of all the plant species recorded after this survey followed by a classified list of 272 plant species is given in Chapter V. A detailed general discussion on the ethnobotany of 'Nath' of Bundelkhand form the basis of Chapter VI. Chapter VII deals with the summary of present findings and authorwise list of alphabetically arranged references is given under bibliography.

The thesis is supported by 6 Tables and 10 illustrations.

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CHAPTER - I

*General Introduction*

## GENERAL INTRODUCTION

The Indian subcontinent represents one of the greatest emporia of ethnobotanical wealth. Here many living groups of peoples, still more or less isolated from the influences of the modern world and who continue to live in close association and vital dependence on their vegetation, provide opportunities to the scientist for profound research. Besides, India also presents variety of meteorological and climatic conditions, as well as flora. This vast region, therefore offers unique combination of situations and circumstances to carry out ethnobotanical researches.

Ethnobotany deals with the relationship between human societies and plants. It has been recognised as a multidisciplinary science comprising many interesting and useful aspects of plant science, history, anthropology, culture and literature. Its importance has been realised chiefly in respect of the varied economic uses of plants among the primitive human societies. It brings to light numerous little known or unknown uses of plants, some of which have potential of wider usage. Ethnologies on tribes living in different parts of the world, works on indigenous medicines and botany and sometimes even forestry and travel accounts contain data of ethnobotanical significance. It also includes material, cultural and medico-religious relationship of the tribes with the plants around their dwellings.

India is very rich in ethnobotanical information about 80 percent of populations live in villages, with a rough estimate Indian sub-continent is

inhabited by over 550 tribal communities belonging to different ethnic group living in remote forest areas. The different traditions, believes, and cultures of the various tribes and the diversity of the flora in India richly contribute to plant folklores. With the advent of technological progress of the so called civilized societies, the age old cultures of tribal communities have now threatened an extinction. Their age old, time tested cultural values, rich traditional skills and above all the oral folklore knowledge system are fast disappearing and are likely to be lost for ever. This phenomenon has caused a great concern to the scientists as well as the government agencies leading to facing this challenge and to conserve this valuable knowledge and wisdom of the tribals/ aboriginal communities for the posterity. One way of fighting this challenge is concerned with ethnobiology which obviously includes the folklores of plants as well as animals since this endeavour is related with plants, hence only ethnobotanical considerations are included whose multidisciplinary facets include anthropology, medical and economic botany, besides the other usual branches. De (1968) has rightly regarded ethnobotany as the study of interrelationship between the people and the plants. The practical knowledge of various uses of plants may be obtained either by, a thorough survey of the literature and/or by field studies among primitive people. The study of plants amongst the primitive people is now receiving much attention from botanists and other research workers through out the world besides, the aboriginals have also learnt about the traditional treatment of diseases by the method of trial



and error and more often than not, at the heavy cost of human life. The term primitive or aboriginal refers to the indigenous people of the region with little or no technological development, no written language, having a distinct culture of their own and living in small, and economically isolated groups (Jain, 1967). These primitive people still prefer to live in perfect dependence on nature and solved their problems following their own traditional method such studies constitute the science of ethnobotany.

Considering the importance of ethnobotany Schultes (1960) has rightly pointed out the urgent need is to find out ways and means to salvage the ethnobotanical lore before it becomes forever entombed with the culture that gave it birth. In recent years some efforts have been made for organised ethnobotanical investigation in different parts of this country by various workers including Ahluwalia (1952), Gupta (1960, 1962), Jain (1963a, b, c, 1965), Jain & Tarafder (1963, 1970), Shah and Joshi (1971), Jain *et al.* (1973), Maheshwari *et al.* (1980), Tiwari *et al.* (1980 a, b), Rao and Neogi (1980) Kharkongar and Joseph (1981), Patel *et al.* (1981), Uniyal and Malhotra (1981), Kumar (1982), Kapur and Sarin (1983), Krishna and Das (1983), Singh (1983), Singh *et al.* (1984), Sharma and Lakshminarasimhan (1986), Baruah & Sarma (1987), Rawat and Pangtey (1987), Vartak & Kulkarni (1987), Oommachan & Masih (1987), Mandal & Yonzon (1988), Oommachan and Masih (1989), Sharma (1990), Shukla *et al.* (1991), Khanna and Mudgal (1992), Sahoo and Mudgal (1993), Aminuddin and Girach (1993), Singh and Maheshwari (1993).

Srivastava (1994), Singh et al. (1994), Singh and Anand Prakash (1994), Girach and Aminuddin (1995), Varma et al. (1995), Saini (1996), Singh and Anand Prakash (1996), Khanna et al. (1996), Painuli and Maheshwari (1996), Maheshwari (1996), Anand Kumar (1996), Das (1997), Vivek Kumar and Jain (1998), Kumar et al. (1998), Shrivastava et al. (1999), Maiti and Mishra (2000), Sivakoti and Sivakoti (2000), Khanna and Ramesh Kumar (2000).

With the perusal of foregoing literature it has revealed that no systematic and sustained ethnobotanical surveys of Bundelkhand region have been under taken except the works of Saxena (1983). There are many forest areas in Bundelkhand region which are inhabited by tribals like Kols, Gonds, Lodhies, Sahariyas, Mogia and Nath etc. These tribes live in remote areas of the region in deep forest and in other localities, provide a good scope for the studies of their folk-lore and folk claims. The systematic ethnobotanical studies on these primitive people may be helpful in the explanation and exploitation of plant resources of this area.

However, some aspects of ethnobotanical works on Kols, Gonds and Lodhies tribes of Bundelkhand region have been carried out by Saxena (1993). The ethnobotanical studies of 'Nath' aboriginal people remain untouched. 'Nath' is the aboriginal people of the central provinces wandering jugglers and rope dancers (Sherring, 1974). This tribe is distributed in various parts of Bundelkhand region (Teekamgarh, Chhatarpur, Banda, Hamirpur, Jhansi, Mahoba & Jalaun districts).

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CHAPTER - II

*Social condition of  
Nath*

## SOCIAL CONDITION OF NATH

The people who are dependent on snakes from ancient times are called as Nath, Jogi, Sapera, Madari, and Bajigar etc. The life of these people is depend on snakes and herbs. They use mantras of various purposes. Thus their tradition and culture is primitive. Some times 'Nath' is catagorised under schedule tribe. The "sapera" is catagorised in to 7 sub caste (Ghamri, Vaid, Agarval, Nhar, Surdey, Panihar and Othwal). These people use to pet snakes for their livelyhood. The people belongs to sapera caste usually add word 'Nath' at the end of their names. Thus the sapera community is basically related with 'Nath' Community. They worship Gorekh Nath, as their Guru. The people of Nath community live like a sant and do not stay at a place of long period but always travel from one place to another place alongwith snakes and a big sized flute time, therefore they are catagorised as wanderers (Plate - 1). The flute is used to produce musical sound to attract the people. They make a show of snakes to earn money from the people for their livelyhood (Plate - 2).

Some others do some different jobs like singing, dancing, carving, manufacturing brooms, baskets, mats etc. (Plate - 3). They prepare medicines from medicinal herbs and sell them (Plate - 4 & 5). Most of these people are poor. (Plate - 6 & 7) Some hunt the wild animals and collect fruits, flowers and birds and sell them. Their sources of earning change according to the seasons. They climb up the tree with the help of bamboo and collect honey from hives and sell it too. Some of them also do bee keeping. (Plate - 8) They

lead their life in the forest by eating fruits, flowers roots etc.

They tame the animals like hens, goat, dogs, cow, bull and mule, and if, necessary they sell them too. They also grow paddy, seasmum, wheat, gram, pea, oat, mustard etc. They also grow sugar cane to produce 'Gur'. (Plate - 9) The agricultural lands given by the government on lease to these people help them to settle their lives. They were found using traditional methods of agricultural works (Plate - 10)

### **Dress :**

Some times the people belong to 'Nath' are also called as 'Kanphata', and 'Darsani' because they wear a coin in their ear. These people wear brass, iron or copper rings in their ear and garlands of herbs etc. and also keep amulets. Male make a bun of their hairs and generally keep long moustaches and beard. They wear black coloured kurta and take one or two satchle, one rule and 'bein'. They can be seen wondering near railway stations, fair, markets and in the lanes of villages and towns. Female live in the tents and wear ghangra, dhoti Kutra and ornament made of gilet or silver.

They live in open places, sometimes in tents or in huts. Now they are adopted to live in the houses made of mud cowdung and water. They take meals before the sun sets. They have only a few old articles, clothes, small baskets of snakes etc. in their houses.

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CHAPTER - III

*Historical review*

## HISTORICAL REVIEW

From prehistoric ages human culture has, either directly and indirectly, been influenced by the vegetational world. The plants have influenced human culture through out the ages and have accompanied the progress of a civilization. This idea is an accepted fact, which should be critically analysed to understand the mode and scope of this influence. The newer science, Ethnobotany is trying to throw light in this respect.

Ethnobotany is a multidisciplinary science. The subject involves anthropology, sociology, botany and of course medicinal and economic botany. According to De. (1968) Ethnobotany commonly refers to the interrelationship between primitive people and plants, The relationship being extended to the entire range of influences of each on the other and not merely confined to the uses. The term "ethnobotany" was first coined by Harsberger in 1896, one of the pioneers of economic botany in America. The word primitive refers to the people who are devoid of any sort of written language but retain their tradition by verbal means only.

The knowledge about plants that has come through generations verbally is the main subject of ethnobotany. The science of ethnobotany has recently received much attention in certain parts of the world.

The practical knowledge of the uses of plants, may be obtained either by a thorough survey of literature and or by field studies among primitive people. On account of its great fundamental and applied importance, the studies of plant amongst the primitive people is now receiving much attention

from botanists and other research worker's throughout the world. The term primitive refers to the aboriginal or the indigenous people of the region with little or no technological development, no written language, having a distinct culture of their own and living a small and economically isolated groups (Jain 1967). These primitive people still prefer to live in perfect dependance on nature and solve their problems following their own traditional methods.

The development of ethnobotany as a science of the human cultural ecology has proceeded independently in various contries. In Europe, A.P. De Candolle Unger, Bretschneider, Wittmack and other are pioneer workers correlating ethnobotanical data for the solution of prblems related to the origin and distribution of cultivated plants. In the U.S.S.R, Vavilov won a world-wide reputation for his observations that " many kinds and varieties of cultivated plants distinct in their genetic constitution, adaptation, and virtues from any now in the agriculture of civilized men may yet be obtained in various parts of the world; recording of the knowledge of native people concerning uses, properties, cultural treatment and such other information of Ethnobotanical approach is valuable for this purposes."

In the U.S.A. particularly in North America considerable work has been done among the red Indians. In South America, some work has been done in peru. Among the recent American workers the works of V.H. Jones of Ethnobotanical laboratory, Michigan University, and of R.E. Schultes and Von Reis of Harvard University, are specially mentionable.



In Asian countries, the approach to this field is rare. Somewhat diversified treatises which accidentally came into the scope of Ethnobotany have however been observed in the works of foreign as well as Asian workers.

In India, there is vast scope of work in this field the tribal infested hilly tracts and forests in Assam, Chotangapur plateau in Bihar, areas in the Himalayas and the Kumaon hills, tribal areas in Madhya Pradesh, Andaman and Nicobar islands, and many other places in India provide ample opportunities of work for Indian Ethnobotanists. In India, with its diversified ethnic culture distributed along a vast area and having old history of rituals and performances which were related to the plant-world through the ages, the effectiveness of such a study need not be overemphasized.

Unfortunately, few attempt has been made to study this aspect and the aboriginal culture is gradually falling a prey to the axe of civilization. Many virgin forests with tribal habitats still exist however providing opportunities to study. (De, 1968)

According to Kirtikar & Basu 1935 in India the ancient hindus should be given the credit for cultivating what is now called "Ethnobotany". Our ancient literature. Rigveda and Atharvaveda, which date back to 2000 to 1000 B.C. are our important source of ethnobotanical information. The vast vedic literature published in the form of Samhitas and Nighantus can also be used as valuable ethnobotanical resource.

Recently, Check list of Ayurvedic & Unani treatises have also been published, (Anonymous, 1965 a,b), Sharma (1971,72,73) have also reviewed the nighantus and listed various medicinal plant.

The central council for research in indian medicine and homeopathy conducted a number of medico-ethnobotanical surveys. In some tribal regions of the country. Raghunathan recorded various medicinal plant used by the tribals of Nicobar (1976,a), Ladakh (1976,b) and Nilgir (1976,C). The important contributions in the field of Indian ethnobotany can briefly be summarised as below -

The North Western Uttar Pradesh and Himachal Pradesh have been surveyed for the study of plant used in folk medicines by some workers such as Ahluwalia (1952), in Kangra, Gupta (1960), in Garhwal, Rao (1961) in the eastern Himalya, Shah and Joshi (1971), in Kumaon, Maheshwari et. al., (1980). in Kheri district in Uttar Pradesh, Gupta et. al., (1980) explored Ladakh from Ethnobotanical point of view and collected about 250 folk medicinal plant used by the tribals (Amchis) and local inhabitant. Uniyal and Malhotra (1981). recorded about 70 species of plant used by local inhabitants of Garhwal. Srivastava, Kapahi and Atal (1987) reported 54 plant species by the Lepcha, Bhutia. and Nepalese tribals of Sikkim. Rawat and Pangtey (1987) reported 148 plants used by the Bhotiyas of Alpine regions of Kumaon. Negi et. al. (1993) given the notes on ethnobotany of Chamoli, Dehradun, Pauri. Tehri and Uttar Kashi (Garhwal Himalaya) and given uses of 57 species of

plants by the local inhabitants of the areas. Shrivastava (1994) reported the wild edible plants used by Lepcha, Bhutia & Nepali, the three main ethnic tribes & Tibetans of Sikkim-Himalaya.

Karnick et. al. (1981) reported about 40 medicinal plants of ethnobotanical importance from Gawhati and surrounding areas. Mandal (1983) described 49 medicinal plants used by Santals of Birbhum district West Bengal. Bennet (1985) reported 40 plants from west Sikkim used as medicinal, edible and fodder purposes by the local peoples. Maudal and Yonzon (1988) given the details of 45 plants used by the local people of Darjeeling for the treatment of various diseases. Maiti and Mishra (2000) reported 13 plant species having antivenom property used by tribal communities (Munda, Sava, Santal, Lodha and Anon) from Midnapore district of West Bengal.

Manandhar (1995) Published ethnobotanical notes on the 44 species of wild food plants used by the people of Nepal.

Siwakoti & Siwakoti (2000) reported the uses of 122 species of plant used of medicine by Satar tribe of Nepal.

Tiwari et. al., (1980) collected the information on the tribal medicines for the treatment of about 15 common ailments from Siang district of Arunachal Pradesh. Hajra (1981) also reported 76 species of plants used by Monpas of Kameng district for their food and medicines. Baruah & Sharma (1987) reported the uses of 51 plants by Boro and Rava tribals of Arunachal Pradesh.

The north eastern region of India have been surveyed by Bhattacharjee *et. al.*, (1980). Who gathered the folk medicinal claims from different areas of Assam. Kharkonger and Joseph (1981) recorded 100 species of plant of Ethnobotanical importance used by the Khasi and Jaintia tribe in Meghalaya. Rao and Shanpru (1981) recorded about 24 species of plant used by Garos for medicinal purpose in Garo hills. Hajra and bashya (1981) have listed about 32 plant species used for the treatment of various diseases by 'meris' Tribe of Brahmaputra Valley of Assam. Borthakur (1981) recorded the folklores of Karbis a hill tribe of Assam. Borthakur (1993) reported native phytotherapy for child and women diseases prevalent among different ethnic groups of Assam.

Kumar (1982) describe the native uses of plant amongst the Garo tribe of Baphakram sanctuary in Meghalya. Upadhyaya (1982) collected the information about the medicinal uses of 113 important herbal medicinal plant of Shivalik Ranges. Prasad and Rao (1989) reported the Ethnobotany of Khasigaros and Jaintia Tribes of Khasi & garo hills and reported the uses of 65 taxa as food fooder & medicines.

In eastern india Rai Chaudhari & Pal (1978) reported uses of about 25 plants for medicinal purposes by Lodhs of midnapor district (West Bengal) Das Janardhanan & Roy (1983) reported the ethnomedicinal uses of 84 species by the tribes of Jalpaiguri district (West Bengal). Pal and Jain (1989) given a brief account of 40 plants used as herbal medicines by the lodhas of

Midnapor district (West Bengal).

Western India is also been surveyed for ethnobotanical studies by Joshi *et. al.* (1980) who reported the medicinal uses of about 82 plant species by the tribals of Dangs in Dangs District (Gujrat) Patel *et. al.*, (1981) collected the folklore data from the Vaidayas. Farmers and villagers of Bhavnagar district (Gujrat). Vora *et. al.* (1982) reported the medicinal uses of the 42 species of plant for the treatment of jaundice as used by farmers and villagers of Bhavnagar district of Gujrat. Nath in (1983) reported the medicinal uses of 114 wild plants as used by the tribal races of Dahanu forest division of Maharashtra state. Sharma & Lakshminarasimhan (1986) studied the ethnobotany of tribals of Nasik district of Maharashtra state and reported the uses of about 104 plants. Ved Prakash and Mahrotra (1987) Vartak & Kulkarni (1987), Gadgil and Vartak (1981) also contributed on the ethnobotanical study of the Maharashtra state.

Abraham (1981) carried out ethnobotanical investigation in south India he worked on Todas, Kotas and Irulas tribes of Nilgris and reported various medicinal uses of about 35 plant species. Banerjee & Banerjee (1986) surveyed Shevaroy hills of Salem district of Tamilnadu and given the uses of 132 plant species of medicinal value. Prasad Javadhas and Ammal (1987) reported the medicinal uses of 46 plant species by Kanikkar tribes of south India.

Sivaram & Bhaskar (1992) studied on occupational mobility in the Yerukala tribe of Andhra Pradesh. Hosagoudar and Henry (1993) reported the

plants used in birth control and other reproductive ailments by 'Soligar' of Biligirirangana belt in Mysore district of Karnataka. Suryanarayan (1995) reported 34 plants used by the Kondareddy tribe from eastern Godavari district of Andhra Pradesh for curing various ailments both human being as well as cattle. Reddy *et. al.* (1996) described the ethobotanical importance of 6 rutaceous plants, common in Andhra Pradesh. Kumar & Pullaiah (1998) Gathered first hand information on 50 ethnomedicinal plants used by the tribal people of Prakasam district of Andhra Pradesh.

The ethnobotanical studies of the tribals of Bihar, Orissa and West Bengal was carried out by Gose *et. al.* (1980) reported 15 plant species used by tribals of Chotanagpur and Santhal Pargana (Bihar) Gupta (1981) recorded the information regarding the native uses of medicinal plants by Asurs of Netarhat plateau within Chhotanagpur division of south Bihar. Tarafder and Chaudhri (1981) carried out ethnobotanical studies in Hazaribagh district of Bihar. The tribals (Orissa, Bihar, Santhal, Munda, Khond, Bedia, Karmali and Mahali) of this district were found using a large number of wild plants for food and medicine. Pal (1981) who reported the medicinal uses of the 25 plant species for the treatment of various diseases of domestic animal. Chandra, Pandey and Lal (1984) published a paper on the medicinal properties 69 plants of Dumka district of Bihar. Sahoo and Mudgal (1993) worked on ethnobotany of the tribals of Ranchi, Gumla, Lohardaga and Palamau districts of Bihar and reported the uses of 164 plants for medicines food, fooder and other purposes. Girach & Aminuddin (1995) reported the less known medicinal uses of 46 plant

species from the Ho tribe of the Singhbhum district of Bihar.

Das and Mishra (1987) reported 20 species of medicinal plants used by the tribal of Deomali and adjacent areas of Koraput district Orissa. Aminuddin & Girach (1993) recorded ethnobotanical observations on Bhungia tribe of sonabera platu of district Kalahandi, Orissa.

In Rajasthan also ethnomedicinal survey were carried out Sharma (1990) reported the uses of 12 plant species for the treatment of Guinea worm disease. Singh and Pandey (1996) found that the Adivasis of Rajasthan were using 74 species of plants for venereal and gynaecological disease and disorders. Das (1997) gathered the information on the ethnobotany of Karauli and Sawai Madhopur district in Rajasthan and reported the uses of 268 species of plants.

About 50 % tribal population in India resides at various places in Madhya Pradesh. The tribal population of the state constituting about three-fourth of the population mainly in Mandla, Bastar and Balaghat districts but only a few ethnobotanical investigation have been carried out. The ethnobotany of Gonds has been studied by Elwin (1947, 1950). Jain & Tarafdar (1963) studied the remedies for snake bite among the adivasis of Central India and reported the uses of 400 plant species used as curatives for snake bites. Jain (1963,a, 1963,b, 1965,c) and Jain *et. al.* (1973), Roy and Chaturvedi (1987) also contributed research papers about the ethnobotany of the state. Oomachan and Masih (1987) reported the medicinal uses of 71 plants species for the treatment of human and cattle diseases from remote tribal areas of Central

India. Oommachan and Masih (1989) enumerated the plants used as timber fuel and minor products by the rural and tribal inhabitants of Jabalpur district. Oomachan et. al. (1989) given ethnobotanical detail of 171 wild plants from the forest areas of Madhya Pradesh. Oomachan et. al. (1990) reported 22 species of plants used by tribals in Pachmarhi for making baskets, mats, gum, timbers, oil and fuel etc. Shukla et. al. (1991) collected the information about the uses of 60 plant species by the Baigas of Mandala districts of Madhya Pradesh. Jain & Sahu (1993) reported ethnobotanical uses of 45 plants species by the tribals of Moradehi sanctuary park of Madhya Pradesh. Sikarwar (1993) enumerated the ethnogynoeological uses of 18 plant species from the tribals of Madhya Pradesh. Verma et. al. (1995) given first hand information on the traditional phytotherapy among the Baga tribe of Shahdol district Madhya Pradesh and reported the 17 plant species. The Sahariya tribals of Chambal division of Madhya Pradesh were also found using plants for medicine, fuel, fiber, agriculture and fishing etc. (Jain, 1995). Maheshwari (1996) surveyed the tribals of Madhya Pradesh and reported the uses of 550 plant species for folk medicines. Samwatsar and Diwanji (1996) further reported the uses of 16 plant species by the tribals of western Madhya Pradesh for the treatment of skin diseases. Painuli and Maheshwari (1996) reported the ethnomedicinal uses of 300 plant species used by Sahariya tribe of Madhya Pradesh for the treatment of different diseases. The Muria tribe of Bastar district, (M.P.) also found using 27 plant species for medicinal purposes (Anand Kumar, 1996). The tribals of Jhabua district (M.P.) were found using 8 species of plants for the treatment of



snake and scorpion bites as reported by Samwatsar and Diwanji (1996). Vivek Kumar and Jain (1998) described 50 species of plants used by the rural people of Surguja district (M.P.). The tribals of western Madhya Pradesh were also surveyed for rheumatism by Samwatsar and Diwanji (1999) and reported the uses of 91 plant species. Shrivastva *et. al.* (1999) studied on the tribals of Bastar district (M.P.) and reported that they were found using 20 preparation of herbal medicines for antifertility and abortification. Singh *et. al.* (1999) surveyed the tribals of Madhya Pradesh reported 85 plant species used for fuel purpose.

In Uttar Pradesh Siddiqui *et. al.* (1989) reported the use of 47 plant species of pteridophytes and gymnosperms, used by the people of Aligarh, Bulandshahar, Gaziabad, Hardoi and Sitapur district of Uttar Pradesh for treatment of skin diseases. Mishra and Shukla (1981) collected information from villagers about the ethnomedicinal uses of 196 plant species in Allahabad district. Singh and Maheshwari (1983) given therapeutic uses of 53 medicinal plants by the Kol, Kharwar and mushar tribe of Varanasi district. Singh (1984) given information about the medicinal uses of 15 plant species used by the people of eastern Uttar Pradesh. Khanna & Mudgal (1992) given the account of ethnobotanical data of 234 plants species gathered from the herbarium of Botanical Survey of India, Allahabad.

Singh & Maheshwari (1993) surveyed the ethnobotany of Bhoja tribe of Nainital District of Uttar Pradesh and reported about 9 herbal remedies for the treatment of diphtheria in human being and cattle.

Khanna et. al. (1994) given the unreported medicinal uses of 18 plant species exploited as aphrodisiac among the folklores of U.P. plains. Singh et. al. (1994) studied the traditional uses of 44 medicinal plants by the Gond of Sonbhadra district of Uttar Pradesh. Saini (1996) reported the less known uses of 254 plants among the tharus tribe of Basti district. Singh and Anand Prakash (1996) recorded the observations on ethnobotany of Kol tribe inhabiting the forest areas of Naugarah block of Varanashi district and reported the economic values of 150 plants. Bajpayee et. al. (1996) reported about 41 plant species used by the Bheel, Kanjar, Banvasi, Kol, Nat, Kirat, Banjara, Lakhra and Tharurana of Tarai region of Uttar Pradesh. Sharma (1996) given the uses of 42 plant species as veterinary medicines by the rural people of Saharanpur district. Khanna et. al. (1996) given the account of medicinal uses of 43 plant species known amongst the rural inhabitants of Raebareli district, Uttar Pradesh in which 5 plant species were found to be popularly used as antidote to snake bite and scorpion sting. Khanna et. al. (1996) studied on the ethnobotany of tribal and rural people of Mirzapur district and reported the uses of 27 plant species for medicinal purposes. Khanna et. al. (1996) described the medicinal uses of 33 plant species from the rural folk-lore of Jalun district (U.P.). Singh and And Prakash (1998) given the ethnomedicinal uses of Cajanus cajan, Chloroxylon swietenia, Mallotus philippensis, Ricinus communis which are widely used for the treatment of jaundice and other liver ailments by the Tharu, Kol, Gond, Kharwar and Korwa tribe of Uttar Pradesh. Khanna & Kumar (2000) given an account of ethnomedicinal uses of 50 plant species known among the

Gujjar tribe of Shaharanpur district.

With the perusal of foregoing literature it has revealed that no systematic and sustained ethnobotanical surveys of Bundelkhand region have been under taken except the works of Saxena (1983). There are many forest areas in Bundelkhand region which are inhabited by tribals like Kols, Gonds Lodhies, Sahariyas, Mogia and Nath etc. These tribes live in remote areas of the region in deep forest and in other localities, provide a good scope for the studies of their folk-lore and folk claims. The systematic ethnobotanical studies on these primitive people may be helpful in the explanation and exploitation of plant resources of this area. However, some aspects of ethnobotanical works on Kols, Gonds and Lodhies tribes of Bundelkhand region have been carried out by Saxena (1993). The ethnobotanical studies of 'Nath' tribes remain untouched. 'Nath' is the aboriginal tribe of the central provinces wandering jugglers and rope dancers (Sherrin 1974). This tribe is distributed in various parts of Bundelkhand region but is abundant in Tikamgarh, Chhatarpur, Banda, Karwi, Hamirpur, Mahoba and Jhansi Districts provide a good scope for the ethnobotanical study. As such, therefore, considering the importance of ethnobotanical study of 'Nath' of Bundelkhand region, the present investigation was under taken.

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CHAPTER - IV

# *Material and method*

## MATERIAL AND METHOD

Frequent ethnobotanical surveys of the Nath inhabited localities of Bundelkhand Region viz. Banda, Karwi, Hamirpur, Mahoba, Jhansi, Jalaun, and Lalitpur districts of Uttar Pradesh and Chhatarpur, Datia, Tikamgarh districts of Madhya Pradesh were undertaken during 1998-2001 on the guide lines as suggested by schultes (1962) and Jain (1963a, 1964, 1965). The information about the use of plants for food, fooder, medicine, dye, oil, fibre and tannin etc. were recorded by personal interviews with tribals (Nath). Some ethnobotanical informations were also recorded from herbalists, forest dwellers, cowherds and old experienced villagers of the area under study, these informations could be obtained by intimate contact and consistant persuation with them. Specimen were also collected of all the plants reported to be used for different purposes and marked with there field numbers, They were identified upto species level. Some specimens were also confirmed with the isotype specimens preserved in the herbarium of Botanical survey of India, Central circle Allahabad. All the specimens except some well known plants were preserved for authentic information and future refrence. The plant materials used for various purposes by the tribals like roots, rhizomes, stems, bark, branches,leaves, flowers, and seeds were also collected and preserved in F.A.A. All these specimens have been deposited in the herbarium of the Post Graduate department of Botany, Pt.J.N.P.G.College, Banda (U.P.).

For the purpose of enumeration, the plants have been placed alphabetically on the basis of their botanical names under their respective families arranged according to Hooker's system (1872-97) of classification.

The information about the ethnobotanical use(s) of plant has been given in the following sequence :-

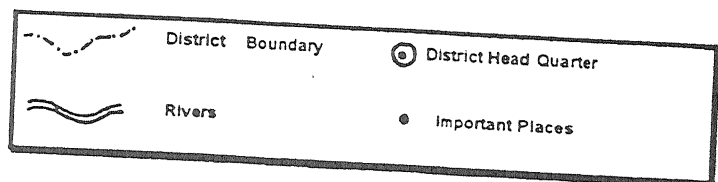
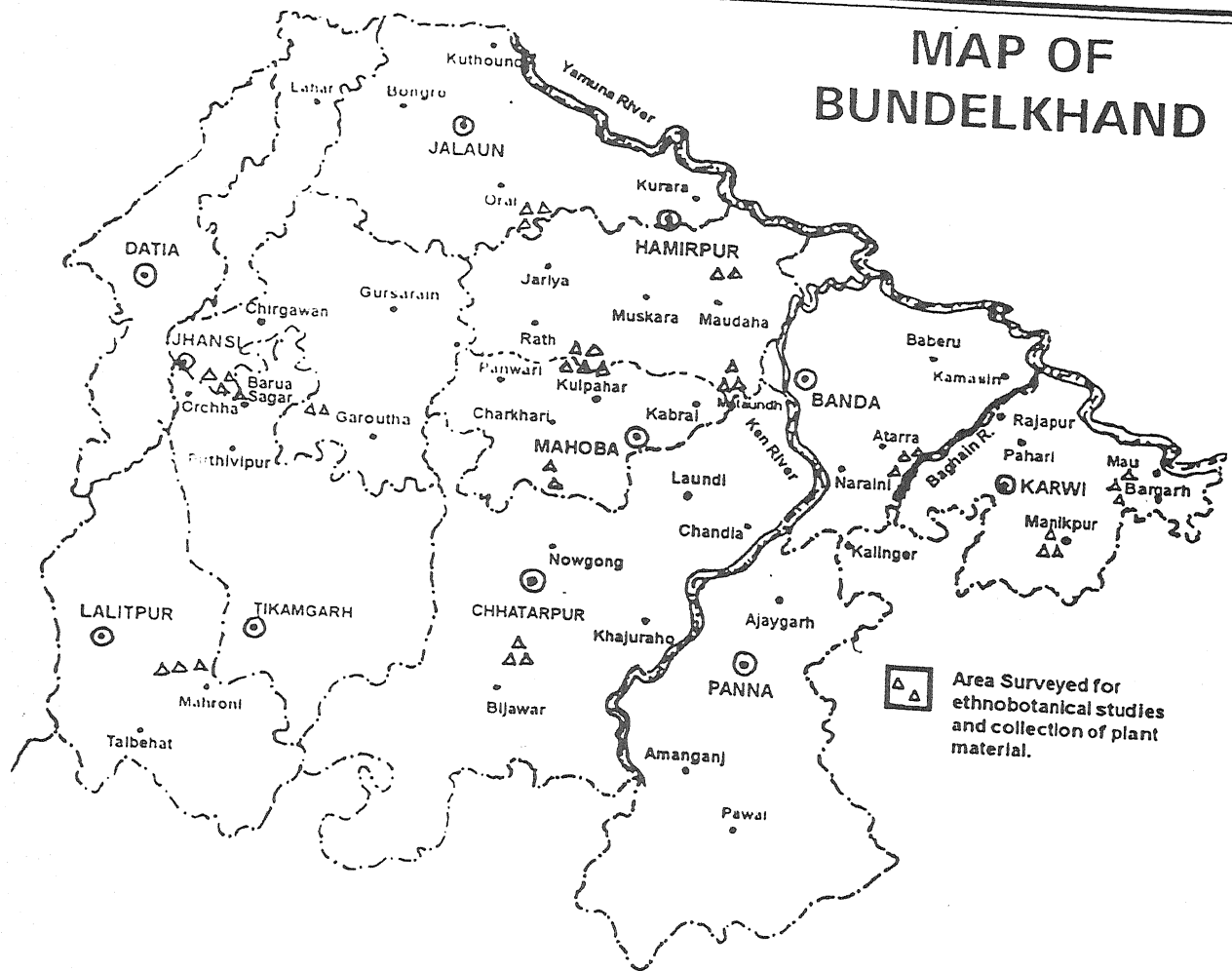
Botanical name : Local name(s) (given in parenthesis), habit.

Local use(s) (as reported by tribals and other villagers).

Locality (Loc.) indicating place (The place of collection of information and plant material) district, state and field number.

Ethnobotanical distribution (Ethn. dist.) of the plant species (used for similar and dissimilar purposes) is given on the basis of available literature.

# MAP OF BUNDELKHAND



0 25 50Km.

## SOIL AND CLIMATE

The climate of Bundelkhand is the result of its position astronomical or physical. The tropic of cancer passes just south of this region. Its situation in the interior part of the Indian subcontinent gives it a continental character with extremes of temperature in large ranges. Centrality of the region also imposes on it, the features of a transition zone between the tropical maritime climate of the east (Bay of Bengal) and the tropical continental dry climate of the West (Thar desert). The altitude does not play any important part in determining its climate.

On the basis of typical monsoonic climate in the whole region, the year is divisible into three well marked seasons viz., rainy (mid June to mid October), winter (mid October to February) and summer (March to mid June).

### **(a) Temperature**

The average annual temperature of Bundelkhand in 1999-2001 remained uniformly high (70° - 93° F). The mean annual temperature of Banda was 80.2° F, that of Orai 72.5° F, Jhansi 79.5° F, Nougaoon 77.7° F but their mean monthly values considerably varied from their annual means. The temperature exhibited a large range of variations between winter and summer seasons. The lowest temperature was recorded in December at Orai 55.5° F, Banda 57.2° F, Nougaoon 60.5° F, Jhansi 64.2° F. However, the highest average monthly temperature in Banda 96.2° F, that of Jhansi 94.5° F, Nougaoon 92.5° F and Orai 91.4° F could be recorded in the month of June (with the onset of monsoon, during June upto August). During September and October



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CHAPTER - V

*Enumeration of plant  
species*

# ENUMERATION OF PLANT SPECIES

## INTRODUCTION

This part of dissertation deals with all the ethnobotanical records which are the outcome of the present investigation.

During the ethnobotanical survey of 'Nath' tribe, spanning through a period of 4 years (1998 to 2001) a total of 272 species of plants belonging to 74 families were recorded as important plants, used by the tribal people of the area selected for study. The ethnobotanical informations were collected from the tribal people (Nath's) and also from the other people including herbalists, vaidyas, cowherds, sheepherds & goatherds etc. who often have been found using plants for various purposes.

The ethnobotanical uses of the plant species were enumerated alongwith its botanical name, local name, habit and ethnobotanical distribution. The plant species marked with the asterisk (\*) represent those which have been adjudged to be the new ethnobotanical record from Bundelkhand region where as those with a not equal ( # ) are the uses of plant species which is endemic to this region.

The plant species have been placed alphabetically on the basis of their botanical names under their respective families arranged according to Hooker's system (1872-97) of classification.

## RANUNCULACEAE

### 1. Ranunculus sceleratus, Linn. (Jal dhaniya), Herb

The decoction of the leaf is used for the treatment of dandruff and baldness.

Crushed fresh leaves are mixed with the oil of Brassica campestris, Linn. to make a paste. The paste is locally applied on eczema and other skin diseases.

**Loc.** Banda (U.P.) 992.

**Ethn.dist.** Banda (Saxena and Vyas, 1981), Uttar Pradesh (Khanna et al., 1994), Rajasthan (Das, 1997).

## DILLENIACEAE

### 2. Dillenia indica, Linn. (Chalta), Tree

The stem bark is pounded in to paste. It is used for the treatment of wounds.

**Loc.** Naraini, Banda (U.P.) 528.

**Ethn.dist.** North Eastern India (Arora, 1981; Jain et al., 1997), India (Khanna and Mudgal, 1992), Bihar (Sahoo & Mudgal, 1993).

## ANNONACEAE

### 3. Annona squamosa, Linn. (Shareefa), Shrub

The leaves are pounded and used as external application on the wounds of cattle.

The expressed juice of leaves is used as oral administration during general debility.

The seeds are grinded and applied on temple for the treatment of headache.

The root juice is used as oral administration for the treatment of sudden obstruction for urination.

**Loc.** Mahoba (U.P.) 251.

**Ethn.dist.** Eastern India (Pal, 1981), Central India (Jain, 1981), Bihar (Tarafder, 1983), Uttar Pradesh (Negi *et. al.* 1993 Saini, 1996), Rajasthan (Das, 1997), Madhya Pradesh (Painuli & Maheshwari, 1996; Singh *et al.*, 1999), Nepal, Siwakoti & Siwakoti, 2000).

## MENISPERMACEAE

### 4. Cissampelos pareira, Linn. (Jal Jamini), Creeper

Powdered root mixed with black pepper is used for the treatment of malarial fever.

Plants are useful for the treatment of dysentery.

The decoction of the root is taken orally for the treatment of cold and cough.

Roots are said to be useful for treatment of scorpion sting and insect bite.

+Plant used for totam.

**Loc.** Jaitpur, Mahoba (U.P.) 385.

**Ethn.dist.** Orissa (Saxena, *et. al.*, 1981), West Bengal (Das *et al.*, 1983), Sikkim (Krishna & Das, 1983), Himachal Pradesh (Kapoor, 1986). Bihar (Tarafder & Chaudhary, 1981; Sahoo & Mudgal, 1993), Madhya Pradesh (Jain 1965; Shukla *et. al.* 1991; Jain and Sahu, 1993; Sikarwar, 1993; Painuli & Maheshwari, 1996), Uttar Pradesh (Saini, 1996), Rajasthan (Das, 1997), Nepal (Siwakoti & Siwakoti, 2000).

5. Cocculus hirsutus, (Linn.), Diels (Chhirenta), Shrub

The leaves are useful for the treatment of gonorrhoea. Juice of the crushed leaves is given orally to the child suffering from diarrhoea.

The powdered stem is prescribed for oral administration in stomachache.

Plant is useful for the treatment of fever.

**Loc.** Girwan, Banda (U.P.) 1235.

**Ethn.dist.** Orissa (Saxena, et al., 1981), Maharastra (Shah et al., 1983; Mudaliar et al., 1987), India (Khanna & Mudgal, 1992), Rajasthan (Singh and Pandey, 1996), Uttar Pradesh (Saini, 1996), Rajasthan (Das, 1997).

6. Tinospora cordifolia, (Willd), Miers. (Gurich), Climber.

The decoction of the stem is used for the treatment of fever.

The decoction of the stem is used for the treatment of snakebite, cough and general debility.

The powdered stem is recommended as oral administration for the treatment of diabetics.

**Loc.** Mawai, Banda (U.P.) 1068

**Ethn.dist.** Calcutta (Chakrawarty, 1975), Himachal Pradesh (Kapur, 1986) Rajasthan (Singh and Pandey, 1996) Uttar Pradesh (Singh and Maheshwari, 1983; Saini, 1996), Madhya Pradesh (Roy and Chaturvedi, 1987; Jain 1965; Samvatsar & Diwanji, 1999) Nepal (Siwakoti & Siwakoti, 2000).

## NYMPHAEACEAE

7. Nelumbo nucifera, Garden (Kamal), Herb.

Powdered root is used for the treatment of intestinal disorder. The powdered fruit is used with milk for the treatment of spermatorrhoea.

The shoots are cooked as vegetable and also as pickle.

Leaves and flower-buds are also cooked as vegetable.

**Loc.** Charkhari, Mahoba (U.P.) 1206.

**Ethn.dist.** Assam (Tiwari *et al.*, 1980), North Eastern India (Arora, 1981), Meghalaya (Niyogi *et al.*, 1989), India (Khanna and Mudgal, 1992), Uttar Pradesh (Siddiqui *et al.*, 1989; Bajpayee and Dixit, 1996), Rajasthan (Das, 1997),

**\*8. Nymphaea stellata, Willd. (Gadhool), Aquatic herb.**

The seed are dried and powdered and given orally to cure itch and other skin diseases,

Extract of the crushed leaves is used for the treatment of fever.

Flowers offered to god.

The underground part, locally known as 'Surka' is eaten.

**Loc.** Mudhari, Hamirpur (U.P.) 1300.

**Ethn.dist.** Bundelkhand.

## PAPAVERACEAE

**9. Argemone maxicana, Linn. (Shial-kanta), Herb.**

The whole plant is pounded into paste and used to make poultice with brassica oil for the treatment of wounds.

The seeds are grinded with brassica oil and made into paste. it is used as local application for the treatment of paralysis.

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\* The plant species adjudged with new ethnobotanical records (or uses)

The ripe fruits are smoked and said to be useful for venereal diseases.

The seeds are powdered and used as antidote to the snake bite.

+ Roots used for totem.

**Loc.** Ghatera, Mahoba (U.P.) 247.

**Ethn.dist.** Himachal Pradesh (Kapur, 1986), Tamil Nadu (Banerjee & Banerjee, 1986), Vyas Valley (Dhyani & Sharma, 1987), Asam & Arunachal Pradesh (Baruah & Sharma, 1987), Meghalaya (Neogi *et al.*, 1989), Nikobar Island (Dagar, 1989), Orissa (Aminuddin *et al.*, 1993), Assam (Borthakur, 1993), Bihar (Sahoo and Mudgal, 1993), Uttar Pradesh (Khanna *et al.*, 1996; Saini, 1996), Rajasthan (Singh & Pandey, 1996; Das, 1997), Madhya Pradesh (Jain 1965; Painuli & Maheshwari, 1996; Samwatsar & Diwanji, 1996; Anand Kumar, 1996; Vivek Kumar & Jain, 1998), Nepal (Siwakoti & Shiwakoti, 2000).

## FUMARIACEAE

### 10. Fumaria parviflora, Lamk. (Papra), Herb.

Powdered plant is recommended for oral administration in itch and other skin diseases.

**Loc.** Ghatera, Mahoba (U.P.) 1305.

**Ethn.dist.** Himachal Pradesh (Kapur, 1986).

## CRUCIFERAE

### 11. Brassica campestris, Linn. (Pili Sarson), Herb.

The leaves are used as vegetables.

The oil is used for edible purposes.

Oil cakes are given to cattle for feeding.

The oil is orally administered to the cattle for intestinal worms.

The oil mixed with kapoor is externally applied to gout.

**Loc.** Mudhari, Hamirpur (U.P.) 289.

**Ethn.dist.** Vyasi Valley (Dhyani and Sharma, 1987), Orissa (Amineeddin et al., 1993), Uttar Pradesh (Singh and Maheshwari, 1985; Saini, 1996).

12. Brassica juncea, H.K. (Rai), Herb.

The oil is used for cooking and to preserve the pickles.

The leaves are used as vegetables and also provided to the cattle for feeding.

The seeds are used in ring worms.

**Loc.** Rampura, Jalaun (U.P.) 286.

**Ethn.dist.** Nilgiris (Abraham, 1981), Vyasi Valley (Dhyani and Sharma, 1987)

13. Brassica nigra, Koch. (Kali Rai), Shrub.

The seeds are used as spices.

The powdered seeds with whey is given to the cattle for intestinal worms.

Oil acts as an emetic.

**Loc.** Kotra, Jalaun (U.P.) 1307.

**Ethn.dist.** North eastern India (Islam, 1986)

14. Raphanus sativus, Linn. (Muli), Herb.

The whole plant is used as vegetable.

The seeds are grinded with mustard oil and applied in laprosy.

The roots are commonly used as salad.



Loc. Kudaura, Hamirpur (U.P.) 1309.

Ethn.dist. Vyasi Valley (Dhyani and Sharma, 1987) Rajasthan (Singh & Pandey, 1996).

## CAPPARIDACEAE

### 15. Capparis decidua (Forsk) Edgen.(Karil), Shrub.

#The young stem is pounded in to paste and applied externally for the treatment of thrombophobites.

#The decoction of the root is said to be useful for the treatment of malarial fever.

Loc. Chitrakut, Karwi (U.P.) 307.

Ethn.dist. Madhya Pradesh (Sikarwar, 1994), Rajasthan (Das, 1997).

### 16. Cleome viscosa, Linn. (Hurhur), Herb.

The seeds are powdered and recommended for the oral administration to snake bite.

The seeds are eaten.

Extract of leaves is topically applied for treatment of itch.

The juice of the leaves is used for earache.

Loc. Kalinjar, Banda (U.P.) 386.

Ethn.dist. Bihar (Tarafder and Chaudhuri, 1981), Maharashtra (Shah *et. al.*, 1983), Meghalaya (Neogi *et. al.*, 1989), Vyasi Valley (Dhyani and Sharma, 1987), Uttar Pradesh (Saini, 1996), Madhya Pradesh (Samwatsar & Diwanji, 1996), Rajasthan (Sharma, 1990; Das, 1997).

### 17. Gynandropsis gynandra, Linn. (Hur Hur), Herb.

#The leaves are pounded in to paste and applied externally for the treatment of wound.

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# The information or ethnobotanical use endemic to the area of study.

#The expressed juice of leaves is used for the treatment of earache.

The expressed juice of leaves alongwith sugar is taken orally for the treatment of malarial fever.

The roots and seeds are pounded into paste and applied externally for the treatment of scorpion sting and snakebite.

+The leaves is rolled and tied around the ear for the treatment of ghost effect.

Loc. Kahra, Hamirpur (U.P.) 763.

Ethn.dist. Madhya Pradesh (Khare & Khare, 1999).

\*18. Gynandropsis pentaphylla, DC. (Hur Hur), Herb.

Expressed juice of the leaves is useful in toothache.

Loc. Kalinjar, Banda (U.P.) 1325.

Ethn.dist. Bundelkhand.

## BIXINEAE

19. Flacourtia indica, Merr. (Katai), Shrub.

The roots are used as an antidote to snake bite.

The fruits are eaten.

Decoction of the bark is used to treat the scabies and other skin diseases.

Loc. Balabhent, Lalitpur (U.P.) 1332.

Ethn.dist. Vyasi Valley ( Dhyani and Sharma, 1987 ), Uttar Pradesh (Siddiqui et. al. 1989; Saini, 1996), Rajasthan ( Das, 1997 ), Madhya Pradesh (Jain, 1963; Shukla et. al., 1991; Singh et. al.; 1999; Samvatsar & Diwanji, 1999).

## POLYGALACEAE

\*20. Polygala chinensis, Linn. (Meladu), Herb.

The powdered root is used for the treatment of fever.

Loc. Kalinjar, Banda (U.P.) 1210.

Ethn.dist. Bundelkhand.

## PORTULACACEAE

21. Portulaca oleracea, Linn. (Kulpha), Herb.

The plant is used as vegetables.

#The poultice of the leaves is used for the treatment of boils.

Loc. Bharuwa Sumerpur, Hamirpur (U.P.) 980.

Ethn.dist. Madhya Pradesh (Sikarwar, 1994), Uttar Pradesh (Bajpai & Dixit, 1996; Saini, 1996).

## DIPTEROCARPEAE

22. Shorea robusta, Gaerth. f. (Shal), Tree.

The wood is used for house building materials.

The twigs are used as tooth sticks.

Loc. Amanganj (M.P.) 1336.

Ethn.dist. Eastern India (Pal, 1981), Vyasi Valley (Dhyani and Sharma, 1987), Madhya Pradesh (Jain, 1963, 1981; Shukla et al; 1991), India (Khanna & Mudgal, 1992), Orissa (Aminuddin et al; 1993), Bihar (Girach and Aminuddin, 1995), Uttar Pradesh (Singh and Maheshwari, 1985; Singh et al; 1996).

## MALVACEAE

23. Abutilon hirtum, G. Don. (Barkhang), Shrub.

#The powdered seed with honey are used for the treatment of fever.

Loc. Nimnipar, Banda (U.P.) 01.

Ethn.dist. Uttar Pradesh (Saini, 1996).

24. Abutilon indicum, Linn. (Kanghi), Shrub.

The powdered seeds are used for the treatment of piles.

The leaves are dried and powdered, The powder is used for diuretic purpose.

The powdered seeds are used for the treatment of fever.

Loc. Bharuwa Sumerpur, Hamirpur (U.P.) 05.

Ethn.dist. Himachal Pradesh (Kapur, 1986), Vyasi Valley ( Dhyani & Sharma, 1987), Katchal Island (Dagar and Dagar, 1991), Bihar (Girach & Aminuddin, 1995), Madhya Pradesh ( Painuli & Maheshwari, 1996), Uttar Pradesh ( Khanna et. al: 1996; Saini, 1996 ), Rajasthan ( Singh and Pandey, 1996 Das, 1997).

25. Gossypium herbaceum, Linn. (Kapas), Shrub.

The powdered seed are used externally alongwith Brassica oil for the treatment of scrofula.

The leaves are pounded, its smell is inhaled for the treatment of cold.

The expressed juice of the leaf is said to be useful for the treatment of scorpion sting.

Oil-cakes are given to the cattle to feed and it is used as manure.

Loc. Rivai, Hamirpur (U.P.) 650.

Ethn.dist. Assam (Borthakur, 1981), Uttar Pradesh (Siddiqui et. al.; 1989)

**26. Salmalia malabaricum, Schott, Meletem. (Semal), Tree**

The plants are used as tonic.

The stem bark is pounded into paste and applied on pimples.

The cotton obtained from the fruits is used for stuffing beds and pillows.

Loc. Girwan, Banda (U.P.) 1340.

Ethn.dist. Assam ( Bhattacharjee et. al., 1980 ), Himachal Pradesh, (Kapur, 1986)

**27. Sida acuta, Burn. (Bariara), Herb**

#The powdered plant is said to be useful for general debility and the retention of urine.

#Roots are pounded in to paste and used as poultice for the treatment of boils.

Loc. Jhalokhar, Hamirpur (U.P.) 1036.

Ethn.dist. Bihar (Tarafer and Chaudhari, 1981), Tamilnadu ( Banarjee and Banerjee, 1986 ) Maharastra ( Mudaliar et. al., 1987 ) Andaman and Nicobar Islands (Awasthi, 1988) Bihar (Sahoa & Mudgal; 1993), Madhya Pradesh ( Jain, 1995 ), Rajasthan (Das, 1997)

**28. Sida cordata, Burn. (Sahdai), Herb**

#The plant is pounded into paste, about one tea spoonful of paste alongwith butter is taken orally for the treatment of dysentery.

The leaf paste is applied on face to cure the pimples.

**Loc.** Kalinjar, Banda (U.P.) 1030.

**Ethn.dist.** Madhya Pradesh (Shukla *et. al.*, 1991), India (Khanna and Mudgal, 1992), Uttar Pradesh (Singh *et. al.*; 1994; Khanna *et. al.*; 1996), Madhya Pradesh (Samwatsar & Diwanji, 1996).

**29. Sida cordifolia, Linn. (Bariari), Herb**

#The plant is dried and powdered, it is used with equal amount of sugar alongwith milk for the treatment of impotence.

#Juice of the root is applied to the cuts and injuries for quick healing of the wound.

**Loc.** Kulpahar, Mahoba (U.P.) 1035.

**Ethn.dist.** Assam (Tiwari *et. al.*, 1980), Bihar (Tarfdar and Chaudhari, 1981), West Bengal (Das *et. al.* 1983), Tamilnadu (Banerjee and Banerjee, 1986), Himachal Pradesh (Kapur, 1986). Madhya Pradesh (Shukla *et. al.*, 1991), Assam (Borthakur, 1993) Uttar Pradesh (Khanna *et. al.*, 1996), Rajasthan (Das, 1997)

**30. Sida spinosa, Linn. (Gursakari), Shrub**

The roots are powdered and given with milk in gonorrhoea.

**Loc.** Lama, Banda (U.P.) 1744.

**Ethn.dist.** Rajasthan (Singh & Pandey, 1996)

**31. Urena lobata, Linn. (Bachata), Under Shrub**

Stem of the plant is used to obtain fibers for ropes.

**Loc.** Bihuni, Hamirpur (U.P.) 1356.

**Ethn.dist.** Uttar Pradesh (Dhyani and Sharma, 1987), Sikkim (Krishna and Das, 1983), Andaman & Nicobar Islands (Awasthi, 1988).

India ( Khanna and Mudgal, 1992 ), Madhya Pradesh  
(Samvatsar & Diwanji, 1999)

## STERCULIACEAE

### 32. Helicteres isora, Linn. (Marorphali), Herb.

#The decoction of the fruit is said to be vermifugal.

The powdered fruits and rock salt in equal amount is used for the treatment of gastric trouble.

The powdered fruits is taken orally for the treatment of diarrhoea.

#The expressed juice of the root is said to be useful for the snake bite.

Loc. Kalingar, Banda (U.P.) 769.

Ethn.dist. Dhasan Valley ( Saxena and Vyas, 1981 ), Orissa ( Saxena et. al., 1981 ) Maharashtra (Shah et. al. 1983 Sharma and Lakshmi Narasimhan, 1986 ), India ( Khanna & Mudgal, 1992), Bihar ( Sahoo & Mudgal, 1993 ; Girach & Aminuddin, 1995) Uttar Pradesh ( Singh & Srivastava, 1996 ; Saini, 1996 ), Madhya Pradesh ( Jain, 1965; Shukla et. al. 1995; Saxena & Patnaik, 2000).

## TILIACEAE

### \*33. Corchorus antichorus, Reecusch. (ghati-Chench), Herb

The leaf juice is used for the treatment of Leucorrhoea.

The leaves are cooked as Vegetables.

Loc. Mudhari, Mahoba (U.P.) 1357.

Ethn.dist. Bundelkhand.

\*34. Corchorus fascicularis Lamk. (Badi-Chench), Herb

Seeds of the plant are used for the treatment of skin diseases.

Loc. Ghatera, Mahoba (U.P.) 1358.

Ethn.dist. Bundelkhand.

35. Corchorus trilocularis, Linn. (Nasi-sak), Herb

#Expressed juice of the leaves is given in diarrhoea.

Loc. Barua Sagar, Jhansi (U.P.) 1376.

Ethn.dist. Madhya Pradesh (Sikarwar, 1994)

36. Grewia hirsuta, Vahl Symb. (Murva), Shrub

#The root is pounded into paste and applied externally for the treatment of wounds.

Loc. Tindwari, Banda (U.P.) 618.

Ethn.dist. India (Khanna and Mudgal, 1992), Bihar (Sahoa & Mudgal, 1993), Uttar Pradesh (Singh *et. al.*, 1994)

\*37. Triumfetta rotundifolia, Lam. (Bala), Herb

Pounded leaves are used on cuts and wounds.

Loc. Sirsi, Hamirpur (U.P.) 1379.

Ethn.dist. Bundelkhand.

## LINACEAE

38. Linum usitatissimum, Linn. (Alsi), Herb

The seeds are pounded into paste and used as poultice for the treatment of boils.

The decoction of the leaves with sugar is used during cough and cold.

Loc. Rivai, Hamirpur, 849.



**Ethn.dist.** North Eastern India (Islam, 1986), Vyasi Valley ( Dhyani and Sharma, 1987), India (Khanna and Mudgal, 1992).

## ZYGOPHYLLACEAE

### 39. Tribulus terrestris, L. (Chotagokhru), Herb

The powdered fruits are used for the treatment of backache.  
The powdered fruits are taken orally for the treatment of kidney stone and general debility.

**Loc.** Mudhari, Mahoba (U.P.) 1083.

**Ethn.dist.** Dhasan Valley (Saxena and Vyas, 1983), Gujrat ( Gopal and Shah, 1985), Himachal Pradesh ( Kapur, 1986 ), Rajasthan (Singh & Pandey, 1996), Rajasthan (Das, 1997).

## GERANIACEAE

### 40. Biophytum sensitivum (L) D.C. (Lajalu), Herb

#The bark is used in eczema and other skin diseases.  
#The decoction of the roots is used in the treatment of urinary obstruction.

**Loc.** Sirsa, Jalaun (U.P.) 1374.

**Ethn.dist.** Bihar ( Sahoo and Mudgal, 1993 ), Madhya Pradesh (Vivek Kumar & S.K.Jain, 1998)

### 41. Impatiens balsamina, Linn. (Gulmehandi), Herb

The plant is pounded and the paste is applied on hips of cattle to cure 'Khurpaka'  
The seeds of the plants are eaten.

**Loc.** Lalitpur (U.P.) 1386.

**Ethn.dist.** Tamilnadu ( Banerjee and Banerjee, 1986 ), Vyasi Valley (Dhyani and Sharma, 1987), Madhya Pradesh ( Shukla et. al., 1991), Rajasthan (Das, 1997).

**42. Oxalis corniculata, Linn. (Khattimithi), Herb**

The plant is used as antidote to snake bite.

The leaves are used in dysentery.

The plant is used to cure scurvy.

Expressed juice of leaves is applied in cuts to stop bleeding and for healing.

The seeds are eaten.

Leaves are used as vegetables.

**Loc.** Kharela, Hamirpur (U.P.) 1394.

**Ethn.dist.** Assam ( Hajra and Baishya, 1981 ), Dhassan Valley (Saxena and Vyas, 1983 ), West Bengal (Das et. al., 1983), Himachal Pradesh ( Kapur, 1986 ), Vyasi Valley ( Dhyani and Sharma, 1987), Meghalaya (Rath, 1981 ; Neogi et. al. 1989 ) Madhya Pradesh (Jain & Sahu, 1993), Uttar Pradesh (Badoni, 1990 ; Khanna et. al., 1994; Bajpayee and Dixit, 1996; Saini, 1996). Rajasthan (Das, 1997), Nepal (Siwakoti & Siwakoti, 2000).

**43. Oxalis latifolia, H.B. & K. (Khatti buti), Herb**

Expressed juice of the underground bulbous part of the plant is used as a tonic.

The leaves are cooked and eaten as vegetable.

**Loc.** Oorchha, Jhansi (U.P.) 1396.

**Ethn.dist.** Assam and Arunachal Pradesh ( Baruah and Sharma, 1987).

## RUTACEAE

44. Aegle marmelos Correa. (Bel), Tree.

The leaves are pounded, mixed with sugar and water, it is taken orally for the treatment of night blindness.

The fruit pulp is used as drink for the treatment of diarrhoea.

The expressed juice of leaves is used for the treatment of diabeities.

The leaves and fruits are used for the worship of Lord Shiva.

The leaf juice is taken orally for the treatment of intestinal worms.

**Loc.** Barua-Sagar, Jhansi (U.P.) 91.

**Ethn.dist.** Calcutta (Chakravarty, 1975), Orissa ( Saxena et. al., 1981 ) Andaman and Nicobar Islands ( Bhargava, 1981 ) Himachal Pradesh (Kapur, 1986), Vyasi Valley ( Dyani and Sharma, 1987), Orissa ( Amineeddin et. al., 1993), Uttar Pradesh (Singh et. al., 1994 ), Madhya Pradesh ( Jain, 1995 ), Andhra Pradesh (Raju, 1995), Nepal Border ( Vishva Vihari, 1995 ), Uttar Pradesh (Khanna et. al., 1996; Bajpayee and Dixit, 1996 ), Rajasthan ( Das, 1997 ), Madhya Pradesh ( Jain, 1965a; Shukla et. al. 1991; Sikarwar, 1994; Jain 1995; Painuli & Maheshwari, 1996; Singh et. al., 1999), Nepal ( Siwakoti & Siwakoti, 2000).

45. Citrus aurantifolia, (Christm.) Swingle. (Kaghzi Nibu), Under tree.

The fruits are used for juice and squashes.

Juice of the fruit alongwith rock salt is used for indigestion.

**Loc.** Sirci, Hamirpur (U.P.) 1401.

**Ethn.dist.** Madhya Pradesh (Jain, 1963; 1965). Meghalya (Joseph and Kharkongor, 1981 ), Vyasi Valley ( Dhyani and Sharma, 1987).

46. Citrus medica, Linn. (Neebu), Under tree.

Lemon juice and salt is applied locally for the treatment of scorpion sting.

Lemon juice mixed with sulphur is externally applied on itch.

Lemon juice and the seeds of Butea monosperma are pounded and made into paste, It is applied externally for the treatment of ring worm.

Lemon juice mixed with leaf juice of mint is applied on pimples.

Lemon juice is also useful for dendruf.

Loc. Matondh, Banda (U.P.) 379.

Ethn.dist. Maharashtra (Sharma and Lakshiminarasimhan, 1986), Nagaland (Jamir, 1990), Katchal Island (Dagar and Dagar, 1997), Andaman Island (Awasthi, 1991).

47. Feronia elephantum, Correa. (Kaitha), Tree.

Decoction of the stem bark in a closed earthen-pot is applied locally to cure itch.

The fruits are used as condiment.

Fruits offered to God during worship.

Loc. Chandpurwa, Hamirpur (U.P.) 1405.

Ethn.dist. Dhasan Valley (Saxena and Vyas, 1983).

## SIMARUPACEAE

48. Balanites aegyptiaca, (Linn) Delile. (Ingua), Shrub.

#The plant is said to be useful for the treatment of snake bite.

The fruit is useful in severe stomachache of cattle.

#Pulp of the fruit mixed with goat-milk is rubbed on the chest during pneumonia.

**Loc.** Naghara. Mahoba (U.P.) 1408.

**Ethn.dist.** Madhya Pradesh (Painuli & Maheshwari, 1996). Rajasthan (Das, 1997).

## BURSERACEAE

### 49. Boswellia serrata, Roxb. ex Colebr. (Salai), Tree.

Gum of the plant is externally applied on itch and eczema.

Decoction of the stem bark is used during cough and cold.

**Loc.** Lalitpur, (U.P.) 1409.

**Ethn.dist.** Bihar (Gupta, 1981), Uttar Pradesh (Singh and Maheshwari, 1983), Bihar, (Sahoo and Mudgal, 1993; Girach & Aminuddin, 1995), Rajasthan (Das, 1997), Madhya Pradesh (Singh et. al., 1999; Samvatsar & Diwanji, 1999).

## MELIACEAE

### 50. Azadirachta indica, A. Juss. (Neem), Tree.

The Leaves are pounded into paste alongwith rock salt ( In equal proportion ) and used for the treatment of insect bite. 10 to 15 fresh leaves are eaten in the morning regularly develops resistance against the snake bite.

The latex of the fruit is applied on the eyelids at bed time is useful for night-blindness.

The expressed juice of the leaves mixed with Brassica Oil is used for external application on the body of the patient suffering from marasmus.

The leaf juice alongwith honey is useful for intestinal worms.

The decoction of all five parts of the plant (Root, Stem, Leaves,

Flowers and fruit) is made, its oral application is useful for the treatment of fever.

The fruits are boiled in Brassica oil and burnt. This oil is applied externally on Urticaria.

Decoction of the leaves are mixed with the leaves of Zizyphus jujuba used for the treatment of dandruff.

One gram gum of the stem is collected one gram of it taken orally is said to be useful for the treatment of kidney stone.

**Loc.** Sirsi, Hamirpur (U.P.) 256.

**Ethn.dist.** Calcutta ( Chakravarty, 1975 ), Maharashtra ( Shah et. al., 1983), Uttar Pradesh ( Singh and Maheshwari, 1985 ), Tamilnadu (Banerjee and Banerjee, 1986), Himachal Pradesh (Kapur, 1986), Vyasi Valley ( Dhyani and Sharma, 1987 ), Andaman Islands (Awasthi, 1991), Nepal Border ( Vishva Vihari, 1995 ), Rajasthan ( Singh & Pandey, 1996), Uttar Pradesh (Saini, 1996), Rajasthan ( Das, 1997 ), Madhya Pradesh (Shukla et. al. 1991; Jain and Sahu, 1993; Jain 1995; Painuli & Maheshwari, 1996; Samvatsar & Diwanji, 1996; Vivek Kumar & S. K. Jain, 1998; Singh et. al., 1999; Saxena & Patnaik, 2000), Nepal (Siwakoti & Siwakoti, 2000).

**51. Melia azedarach, Linn. (Bakain Neem), Tree.**

The seed oil is used as local application for the treatment of ring worm.

The fresh juice of young leaves is useful for the treatment of menstrual disorder.

The ash of leaves alongwith rock salt and honey is said to be useful for gastric disorder.

**Loc.** Bharwa Sumerpur, Hamirpur (U.P.) 865.

**Ethn.dist.** Maharashtra (Shah *et. al.* 1983) Madhya Pradesh (Vivek Kumar & S.K.Jain, 1998), Nepal (Siwakoti & Siwakoti, 2000)

## CELASTRINEAE

### 52. Celastrus paniculata, Willd. (Malkangni), Climber.

The seeds are used in rheumatic pains, paralysis and laprosy.

Oil extracted from the seeds relives earache.

The fruits are used for the treatment of diarrhoea and dysentery.

Flowers and young fruits are used as vegetables.

**Loc.** Chitrakut, Karwi (U.P.) 1411.

**Ethn.dist.** Bihar (Gupta, 1981), Orissa (Saxena *et. al.* 1981), Tamilnadu (Banerjee & Banerjee, 1986), Himachal Pradesh (Kapur, 1986), India (Khanna & Mudgal, 1992), Bihar (Sahoo & Mudgal, 1993; Girach & Aminuddin, 1995), Uttar Pradesh (Saini, 1996), Madhya Pradesh (Jain 1963, 1965; Samvatsar & Diwanji, 1999), Nepal (Siwakoti & Siwakoti, 2000)

## RHAMNACEAE

### \*53. Zizyphus jujuba, Lamp. (Bar), Tree.

The ripe fruits are eaten for the treatment of debility.

The leaves are pounded into paste and applied externally on the abdomen for the treatment of retention of urine.

The leaves are pounded into paste and applied externally on boils.

Ripe fruits are eaten.

The wood is used for making agricultural implements and also as timber.

Loc. Sirci, Hamirpur (U.P.) 1124.

Ethn.dist. Bundelkhand.

54. Zizyphus nummularia, W & A. (Jharbar), Herb.

The leaves are pounded into paste and applied externally for the treatment of cuts and wounds.

The powdered fruits are used for the treatment of cough.

Ripe fruits are eaten.

Fruits offered to God Shiva.

Loc. Bharuwa Sumerpur, Hamirpur (U.P.) 1126.

Ethn.dist. Maharashtra (Shah et. al. 1983), India (Khanna and Mudgal 1992), Madhya Pradesh (Sikarwar, 1994), Rajasthan (Das, 1997).

## SAPINDACEAE

\*55. Sapindus trifolius, Linn. (Ritha), Tree.

Fruits are powdered and used as poultice on boils.

The fruits are used to wash ornaments made of gold and silver.

The fruits are used to wash hair in place of soap.

Loc. Naghara, Hamirpur (U.P.) 1016.

Ethn.dist. Bundelkhand.

## ANACARDIACEAE

56. Buchanania lanzan, Spreng. (Chiraungi), Tree.

The seeds are grinded with milk and used externally for the



treatment of rashes and other skin diseases.

The fruits are eaten.

Stem bark is used in dysentery and diarrhoea.

**Loc.** Ajaigarh. Panna (M.P.) 262.

**Ethn.dist.** India ( Khanna & Mudgal, 1992 ), Uttar Pradesh ( Singh et. al., 1994), Bihar ( Girach & Aminuddin, 1995 ), Madhya Pradesh ( Jain & Sahu, 1993 ; Sikarwar, 1994 ; Painuli & Maheshwari, 1996; Singh et. al. 1999).

**57. Mangifera Indica, L. (Aam), Tree.**

The powdered seed is said to be useful for the treatment of piles.

The pulp of unripened fruit is boiled and taken orally along with some amount of sugar and water is useful for the treatment of sunstroke.

The leaves are used as an antidote to scorpion sting.

The fruits are eaten and also prickled.

The wood is used as timber, furniture and agricultural implements.

Worshiped as sacred plant.

+The inflorescence used for totem.

**Loc.** Rivai, Hamirpur (U.P.) 863.

**Ethn.dist.** Andaman and Nicobar Islands ( Bhargava, 1981 )  
Maharashtra and Goa ( Vartak, 1981 ), India ( Mitre, 1981;  
Chaudhuri & Pal, 1981), Uttar Pradesh (Singh & Maheshwari,  
1983), Maharashtra (Sharma and Lakshminarasimhan, 1986),  
Tamilnadu ( Banerjee and Banerjee, 1986 ), Vyasi Valley  
( Dhyani and Sharma, 1987 ), Uttar Pradesh ( Siddiqui  
et. al., 1989), Karnataka ( Hasagoudar & Henry, 1993 ),  
Rajasthan ( Das, 1997 ), Madhya Pradesh (Jain, 1981 ;

Vivek Kumar & S.K.Jain, 1998; Singh *et. al.*, 1999, Saxena & Patnaik, 2000) Nepal (Siwakoti & Siwakoti, 2000).

**58. Semecarpus anacardium, Linn. (Bhilava), Tree.**

Oil obtained from seeds is used to cure diseases of the feet and foot sores of the cattle.

**Loc.** Talbehat, Lalitpur (U.P.) 1414.

**Ethn.dist.** Eastern India ( Pal, 1981 ). Bihar ( Tarafder, 1983 ), India (Khanna & Mudgal, 1992), Bihar ( Sahoo & Mudgal, 1993 ), Andra Pradesh (Raju, 1995). Uttar Pradesh( Saini, 1996 ), Madhya Pradesh (Jain 1981; Sikarwar 1994; Samvatsar & Diwanji, 1999), Nepal (Siwakoti & Siwakoti, 2000).

## MORINGACEAE

**59. Moringa oleifera, Lamp. (Sahajan), Tree.**

The leaves are grinded and used as external application for the treatment of boils.

The young roots are used as pickles.

Oil extracted from the seeds is used in gout and acute rheumatism.

Cooked green fruits are used as vegetables.

**Loc.** Bharuwasumerpur, Hamirpur (U.P.) 876.

**Ethn.dist.** Nilgiris ( Abraham, 1981 ), Andaman and Nicobar Islands (Bhargava, 1981), Bihar (Tarafder, 1983), Vyasi Valley (Dhyani & Sharma, 1987), Bihar ( Sahoo and Mudgal, 1993 ), Uttar Pradesh ( Saini, 1996 ), Rajasthan (Das, 1997), Madhya Pradesh (Jain 1981; Sikarwar, 1994; Samvatsar & Diwanji, 1999), Nepal (Siwakoti & Siwakoti, 2000).

## LEGUMINOSAE

60. Abrus precatorius, Linn. (Gomehi), Climber.

The powdered seed is used as brain tonic.

The powdered root bark is used for the treatment of fever.

The powdered root is used for the treatment rheumatism.

#Powdered root is useful for skin allergy.

The leaves are used in leucoderma.

The seeds are used by goldsmiths for weighing the ornaments made of gold and silver.

Loc. Bharwara, Hamirpur (U.P.) 8.

Ethn.dist. Andaman & Nicobar Islands ( Bhargava, 1981), Dhasan Valley ( Saxena & Vyas, 1983 ), Bihar ( Tarafder, 1983 ), Himachal Pradesh ( Kapur, 1986 ), Tamilnadu ( Banerjee & Banerjee, 1986), West Bengal (Pal et.al., 1989), India (Khanna & Mudgal, 1992 ), Bihar ( Sahoo & Mudgal, 1993 ), Uttar Pradesh (Singh et. al., 1994), Rajasthan ( Singh & Pandey, 1996), Uttar Pradesh (Khanna et. al., 1996; Saini, 1996 ) , Madhya Pradesh (Jain 1995; Painuli and Maheshwari, 1996; Khare & Khare, 1999 : Samvatsar & Diwanji. 1999 ), Nepal (Siwakoti & Siwakoti, 2000.

61. Acacia arabica, Willd. (Babul), Tree.

The flower are grinded and applied externally for the treatment of conjuctivities.

The powdered fruits are taken orally during impotence.

The leaves are pounded into paste and applied externally on temple for the treatment of headache.

The expressed juice of leaves is mixed with the powdered fruits of Tribulus terrestris for the treatment of gonorrhoea.

The wood is used as timber and fuel.

The wood is used for making agricultural implements.

Plant used for 'mamulian' festival.

+Plant used for totam.

**Loc.** Ghatara, Mahoba (U.P.) 55.

**Ethn.dist.** Mahya Pradesh ( Jain , 1963 ), Calutta ( Chakravarty, 1975), India ( Mitre, 1981 ), Assam & Arunachal Pradesh (Baruah and Sarma, 1987).

**62. Acacia catechu, Willd. (Khair), Tree.**

The wood is used as fuel.

The wood is used for making agricultural implements, also used as timber.

The sap is used for dying ropes and fishing nets.

The leaves are used in skin diseases.

**Loc.** Bhilauni, Hamirpur (U.P.) 66.

**Ethn.dist.** Bihar (Tarafdar & Chaudhuri, 1981), Himachal Pradesh (Kapur, 1986), Vyasi Valley (Dhyani and Sharma, 1987), India (Khanna & Mudgal, 1992 ), Bihar ( Sahoo & Mudgal, 1993 ), Uttar Pradesh ( Saini, 1996 ), Rajasthan ( Das, 1997), Madhya Pradesh (Jain, 1965; Singh et. al., 1999; Samvatsar & Diwanji, 1999).

**63. Albizia lebbek, Benth. (Sirsa), Tree.**

#The leaves are used for the treatment of night blindness.

#The leaves are used as an antidote to snake bite and scorpion sting.

**Loc.** Mawai, Banda (U.P.) 1417.

**Ethn.dist.** Calcutta (Chakravarty, 1975), Madhya Pradesh (Jain, 1995), Rajasthan (Das, 1997), Madhya Pradesh (Singh *et. al.*, 1999).

**64. Albizzia procera, Benth. (Safed siris), Tree.**

#The leaves are pounded in to paste and it is applied externally for the treatment of insect bite.

#The poultice of the leaves is applied for the treatment of boils.

The bark is used for tanning of leather.

**Loc.** Kharela, Hamirpur (U.P.) 135.

**Ethn.dist.** Madhya Pradesh (Singh *et. al.*, 1999).

**65. Bauhinia purpurea, Linn. (Khairwal), Tree.**

The decoction of the root is used for the treatment of indigestion.

The bark is powdered and applied externally with brassica oil for the treatment of piles.

**Loc.** Kalinjar, Banda (U.P.) 259.

**Ethn.dist.** India ( Khanna & Mudgal, 1992 ), Bihar ( Sahoo & Mudgal, 1993), Bihar ( Girach & Aminuddin, 1995 ), Uttar Pradesh ( Saini, 1996 ), Madhya Pradesh ( Sikarwar, 1994 ; Singh *et. al.* 1999).

**66. Bauhinia racemosa, Lam. (Safed Kachnar), Tree.**

The bark is pounded into paste and applied externally for the treatment of candidiasis.

**Loc.** Atarra, Banda (U.P.) 268.

**Ethn.dist.** India ( Khanna & Mudgal, 1992 ), Madhya Pradesh (Jain, 1995), Andhra Pradesh ( Raju, 1995 ), Uttar Pradesh (Singh *et. al.* 1996), Rajasthan (Das, 1997), Madhya Pradesh (Singh *et. al.* 1999)

67. Bauhinia tomentosa, Linn. (Maoli), Tree.

The buds are used in dysentery .

#Expressed juice of the young leaves is taken orally for the treatment of leucorrhoea.

#The bark is used as an antidote to snake bite and scorpion sting.

Loc. Jaitpur, Hamirpur (U.P.) 1419.

Ethn.dist. Rajasthan (Das, 1997).

68. Bauhinia variegata, Linn. (Kachnar), Tree.

The powdered flowers are taken orally alongwith water for the treatment of constipation.

The bark is powdered and applied externally with brassica oil for the treatment of piles.

Flowers and leaves are used as vegetables.

Loc. Barua Sagar, Jhansi (U.P.) 260.

Ethn.dist. Uttar Pradesh ( Siddiqui et. al., 1989 ), Nepal ( Manandhar. 1995), Uttar Pradesh ( Khanna et. al., 1996 ; Saini 1996). Madhya Pradesh (Singh et. al., 1999).

69. Butea monosperma, Lam. (Chhewla), Tree.

#The gum of the plant is fried with butter, it is used for the treatment of general debility after delivery.

The bark and the gum mixed together in equal amounts and provided orally for the treatment of gonorrhoea.

The buds are dried and powdered, the powder is given orally in small amount for the treatment of worms in children.

The seeds are used as an antidote to snake bite.

The roots are tied on wrist on 'Guru purnima' festival.

The wood is used in 'Hawan'.

The roots are used as brush for washing the clothes.

Fibres are obtained for tying purpose.

The leaves are used to make plates locally known as 'Dauna and Pattal'.

**Loc.** Ingohta, Hamirpur (U.P.) 261.

**Ethn.dist.** Uttar Pradesh ( Singh & Maheshwari, 1983 ), Vyasi Valley ( Dhyani and Sharma, 1987 ), Uttar Pradesh (Siddiqui et. al. 1989), Bihar (Sahoo & Mudgal. 1993), Bihar (Girach & Aminuddin, 1995), Uttar Pradesh ( Bajpayee and Dixit, 1996: Saini, 1996), Rajasthan (Das, 1997), Madhya Pradesh (Shukla et. al.; Jain 1995 ; Saxena and Patnaik, 2000 ) Nepal ( Siwakoti & Siwakoti, 2000)

**70. Caesalpinia crista, Linn. (Gatan), Shrub.**

The powdered seeds are used in fever and colic.

**Loc.** Rivai, Hamirpur (U.P.) 1421.

**Ethn.dist.** Maharashtra (Shah et. al., 1983), Uttar Pradesh (Saini, 1996).

**\*71. Caesalpinia pulcherima, Swartz. (Gulturra), Tree.**

The leaves are pounded and applied on septic wounds.

**Loc.** Muddera, Hamirpur (U.P.) 1436.

**Ethn.dist.** Bundelkhand.

**72. Cajanus Cajan, (Linn) Mill Sp. (Arhar), Shrub.**

The fresh roots are grinded with water and filtered the liquid thus obtained is used as eye drop for the treatment of catract.

The leaf juice is also used as eye drop for the treatment of conjuctivities.

**Loc.** Lama, Banda (U.P.) 363.

**Ethn.dist.** Assam (Borthakur, 1993), Uttar Pradesh (Singh et. al., 1994:



Saini 1996, Singh et. al., 1998).

**\*73. Cajanus indicus, Spreng. (Arahar), Shrub.**

The seeds are grinded and mixed with lemon juice is provided orally to reduce narcotic effect of opium.

The fresh leaves are pounded and applied on cuts and wounds.

The stem are used to makes huts.

The leaves are pounded into paste and used as poultice for the treatment of thrombophlobitis.

Green twigs are used for making baskets.

Loc. Sumerpur, Hamirpur (U.P.) 361.

Ethn.dist. Bundelkhand.

**74. Cassia fistula, Linn. (Kirwaa, Amaltas), Tree.**

The fruit pulp is used for the treatment of cattels suffering from colic and other digestive disorders.

The fruit pulp is also said to be used as antidote to snake bite.

The seeds are grinded and made into paste, the paste is applied on the gums for the treatment of pyorrhoea and other infections.

The fruit pulp with gur is provided orally for the treatment of pneumonia.

The decoction of the fruit pulp with gur is provided orally for the treatment of fever.

The wood is used to make furniture.

Loc. Chandpurwa, Hamirpur (U.P.) 327.

Ethn.dist. Bundelkhand (Saxena and Vyas, 1981), Meghalya (Rao and Shanpru, 1981), Eastern India (Pal, 1981), Orissa (Saxena, 1981), Uttar Pradesh (Singh and Maheshwari, 1983), Himachal Pradesh (Kapur, 1986), Tamilnadu (Banerjee and



Banerjee, 1986), Vyasi Valley ( Dhyani & Sharma, 1987). Bihar ( Girach & Aminuddin, 1995), Uttar Pradesh ( Saini, 1996 ), Rajasthan ( Das, 1997), Madhya Pradesh ( Shukla *et. al.*, 1991; Vivek Kumar & S. K. Jain, 1998; Singh *et. al.*, 1999; Khare & Khare, 1999; Samvatsar & Diwanji, 1999 ). Nepal (Siwakoti & Siwakoti, 2000).

**75. Cassia obtusifolia, L. (Chakunda), Herb.**

#The leaves are pounded into paste and applied externally on the boils.

#The powdered seeds and leaves mixed together and applied externally on itch.

**Loc.** Kalinjar, Banda (U.P.)

**Ethn.dist.** Madhya Pradesh (Sikarwar, 1994), Rajasthan (Das 1997), Madhya Pradesh ( Samvatsar & Diwanji, 1999 )

**76. Cassia occidentalis, Linn. (Kasondi), Herb.**

The seeds of kasondi and the fruits of black peeper are taken in equal amount and powdered. The powder is used orally along with water to reduce fever and fat.

The root is grinded with water and the paste is recommended for oral administration for the treatment of snake bite.

The leaves are pounded into paste and used externally for the treatment of itch and ringworm.

**Loc.** Chitrakut, Karwi (U.P.) 331.

**Ethn.dist.** Orissa ( Saxena *et. al.* 1981), Himachal Pradesh ( Kapur, 1986), India (Khanna & Mudgal, 1992 ). Bihar ( Sahoo and Mudal, 1993 ), Andra Pradesh (Raju, 1995 ), Uttar Pradesh ( Khanna *et. al.*, 1996 ), Rajasthan ( Das, 1997 ), Madhya Pradesh (Jain, 1965; Samvatsar & Diwanji, 1996, 1999).

**77. Cassia tora, Linn. (Chakunda), Herb.**

The root is grinded and filtered, the liquid is provided orally for the treatment of snake bite.

The seeds are grinded with stem of *Cuscuta* sp. and made into paste the paste is applied externally for the treatment of eczema.

The fresh leaves are rubbed on the scorpion sting.

The seeds are grinded with lemon juice and applied externally for the treatment of ring worm.

**Loc.** Kaithi, Hamirpur (U.P.) 340.

**Ethn.dist.** Bihar ( Tarafer and Chaudhuri, 1981 ), Meghalaya (Rao and Shanpru 1981), Uttar Pradesh ( Singh and Maheshwari, 1983 ), Maharashta (Sharma & Lakshmi Narasimhan, 1986), India (Khanna & Mudgal, 1992), Madhya Pradesh (Jain, 1981; Shukla *et. al.*, 1991; Sikarwar, 1994 , Maheshwari . 1996 ), Rajasthan (Das, 1997), Nepal (Siwakoti & Siwakoti. 2000).

**78. Cicer arietinum, Linn. (Chana), Herb**

#The dried leaves are diped in water for some time and grinded into paste. The paste is rubbed over the body of the patient suffering from sunstroke. (The dried leaves of gram and locally known as saksa)

**Loc.** Sumerpur, Hamirpur (U.P.) 380.

**Ethn.dist.** Uttar Pradesh. (Khanna *et. al.*, 1996).

**79. Clitoria ternatea, Linn. (Aprajita), Herb.**

Whole plant is used as antidote to snakebite.

+The root is tied round the arm of the child on Sunday or Wednesday to cure rickets.

The roots are powdered and used as poultice for goitre.

Loc. Naghara. Hamirpur (U.P.) 387.

Ethn.dist. Dhasan Valley (Saxena and Vyas, 1983 ), India ( Khanna and Mudgal, 1992 ), Madhya Pradesh ( Sikarwar, 1993), Assam (Borthakur, 1993), Uttar Pradesh ( Khanna et. al., 1994 ), Rajasthan ( Singh and Pandey, 1996), Uttar Pradesh (Khanna et. al., 1996; Saini, 1996), Rajasthan (Das, 1997)

80. Crotalaria juncea, Linn. (San), Herb.

The fibers are used to prepare ropes.

The fibers are used to prepare bag to keep the snakes closed in bamboo box.

Plants is said to be useful for the treatment of fever of cattles.

The fruits are used as vegetables.

The stems are used to make huts.

Loc. Kaithi, Hamirpur (U.P.) 449.

Ethn.dist. India ( Khanna & Mudgal, 1992 ), Madhya Pradesh (Jain, 1995), Uttar Pradesh ( Bajpayee and Dixit, 1996), Rajasthan (Das, 1997).

81. Dalbergia latifolia, Roxb. (Shishapa), Tree.

Plants are used for the treatment of laprosy.

Plant are used as an antihelmintic to the intestinal worms.

The stem bark is used for the tanning of leather.

Loc. Kalinjar, Banda (U.P.) 507.

Ethn.dist. Madhya Pradesh (Jain, 1965)

82. Dalbergia sissoo, Roxb. (Sisum), Tree.

The decoction of the leaves is used for the treatment of gonorrhoea.

The stem bark is grinded with water and filtered it is taken orally for the treatment of vomiting.

The wood is used as timber and fuel.

5 to 6 leaves are pounded in to paste and used orally for the treatment of dysentery.

The wood is used for making furniture, musical and agricultural implements.

**Loc.** Kalinjar, Banda (U.P.) 506.

**Ethn.dist.** West Bengal (Das *et. al.*, 1983), Uttar Pradesh (Singh & Maheshwari, 1985; Khanna *et. al.*, 1996).

**83. Desmodium gangeticum. DC. (Salpan), Shrub**

The decoction of the plant is used for the treatment of malaria and urinary infection.

The seeds are used to produce smoke. The smoke is used as an insect repellent in the cattle house.

The roots are powdered and recommended for oral administration in the treatment of dysentery and diarrhoea.

The roots are used as an antidote to snakebite and scorpion sting.

**Loc.** Rora, Jhansi (U.P.) 525.

**Ethn.dist.** Dhasan Valley ( Saxena and Vyas, 1983 ), Maharashtra ( Sharma and Lakshmi Narasimhan, 1986 ), Vyas Valley (Dhyani and Sharma, 1987), Madhya Pradesh (Shukla, 1991), India ( Khanna & Mudgal, 1992 ), Bihar ( Sahoo and Mudgal, 1993; Saini, 1996 ), Rajasthan ( Das, 1997 ), Nepal (Siwakoti & Siwakoti, 2000)

**\*84. Dolichos biflorus, Linn. (Kulthi), Herb.**

The decoction of seeds is provided orally bi a day for about

20 days for the treatment of kidney stone.

Loc. Nandehra, Hamirpur (U.P.) 537.

Ethn.dist. Bundelkhand.

**85. Dolichos lab lab, Linn. (Sem), Twining Herb.**

#The juice of leaves mixed with lime water is applied externally on goitre.

The fruits are cooked and used as vegetable.

Loc. Kahara, Hamirpur (U.P.) 534.

Ethn.dist. Uttar Pradesh (Khanna *et. al.*, 1996)

**86. Lathyrus sativus, Linn. (Khasheri), Herb.**

#Plants are provided to the cattle for feeding.

Whole plant except roots cooked and used as vegetable.

Loc. Muskara, Hamirpur (U.P.) 821.

Ethn.dist. Uttar Pradesh (Saini, 1996).

**87. \*Medicago sativa, Linn. (Lukh), Herb.**

Used as fodder plant for horses.

Loc. Naraini, Banda (U.P.) 1445.

Ethn.dist. Bundelkhand.

**88. Mimosa pudica, Linn. (Chhui-mui), Under shrub.**

The roots are pounded with water and filtered. The filtrate is provided to the infants during dysentery.

The roots are used as an antidote to snakebite and scorpion sting.

The leaves are used to cure maggot infection in cattle.

The leaves are used for the treatment of hydrocele.

+The leaves are also used for totam.

Loc. Badausa, Banda (U.P.) 867.

Ethn.dist. Meghalaya ( Kharkongor and Joseph, 1981 ); Dhasan Valley (Saxena and Vyas, 1983), Tamilnadu (Banerjee & Banerjee, 1986), Meghalaya ( Neogi et. al., 1989 ), Andhra Pradesh (Raju, 1995 ). Uttar Pradesh ( Singh et. al. 1996 ), Nepal (Siwakoti & Siwakoti, 2000).

89. Mucuna prurita, Hook. (Kiwanch), Climber.

The leaves are pounded in to paste and applied externally for the treatment of boils.

The decoction of root is useful for the treatment of fever.

The powdered seed are used for the treatment of urinary diseases.

Loc. Banda (U.P.) 1205.

Ethn.dist. Dhassan Valley (Saxena and Vyas, 1983), Bihar (Sahoo and Mudgal, 1993), Rajasthan (Das, 1997)

90. Neptunia triquetra, Benth. (Lajalu), Herb.

The root is rubbed with water on a stone and the diluted paste is provided orally to the child suffering from dysentery.

Loc. Kalinjar, Banda (U.P.)1446.

Ethn.dist. Bundelkhand (Saxena and Vyas, 1981).

91. \*Phaseolus trilobus, Ait. (Ban-mung), Trailing herb.

The seeds are dipped in cow's urine over night and grinded to make a paste, it is applied on itch.

Loc. Jalaun, Jalaun (U.P.) 1448.

Ethn.dist. Bundelkhand.



92. Pithecellobium dulce, Roxb. (Benth) (Jangal Jalabi), Tree.

The mature fruit pulp is taken orally during general debility.

The leaf juice is used externally on the effected part of the paralytic patient.

Loc. Chitrakut, Karwi (U.P.) 973.

Ethn.dist. India (Khanna and Mudgal, 1992), Uttar Pradesh Khanna et. al., 1996 ; Bajpayee and Dixit, 1996 ), Rajasthan ( Das, 1997).

93. Pongamia pinnata, Linn. (Karanja), Tree.

The leaf juice is used externally for the treatment of skin diseases.

Loc. Banda (U.P.) 982.

Ethn.dist. Calcutta (Chakravarty, 1975 ), Andaman & Nicobar Islands (Bhargava, 1981), Dhasan Valley ( Saxena and Vyas 1983 ). Uttar Pradesh ( Siddiqui et. al., 1989 ), Andaman Islands (Awasthi, 1991 ), Orissa ( Ghoshal, 1991 ), India (Khanna & Mudgal, 1992), Bihar (Girach and Aminuddin, 1995), Rajasthan ( Das, 1997 ), Madhya Pradesh ( Jain, 1965; Samvatsar & Diwanji, 1996; Khare & Khare, 1999).

94. Psoralea corylifolia, L. (Bakuchi), Herb

The seeds of P. corylifolia and Cassia tora are grinded and applied externally alongwith brassica oil for the treatment of scabies and other skin diseases.

Loc. Barua-Sagar, Jhansi (U.P.) 989.

Ethn.dist. Calcutta ( Chakravarty, 1975 ). Dhasan Valley ( Saxena & Vyas, 1983), Rajasthan (Sharma, 1990), Madhya Pradesh (Samwatsar & Diwanji, 1996).

95. \* Saraca indica, Linn. (Ashok), Tree.

Stem bark is powdered and taken orally for the treatment of leucorrhoea and uterus diseases.

Loc. Chitrakoot, Karwi (U.P.), 1021.

Ethn.dist. Bundelkhand.

96. Tamarindus indicus, Linn. (Imli), Tree.

The leaves are used for the treatment of dysentery and diarrhoea.

The decoction of leaves is provided for oral administration to expell out intestinal worms.

Expressed juice of the leaves is applied on eye lids during the inflammation in eyes.

The fruits are used as condiments.

Loc. Bharua Sumerpur, Hamirpur (U.P.) 1451.

Ethn.dist. Tamilnadu (Banerjee and Banerjee, 1986), Car Nicobar Island (Dagar, 1989), Uttar Pradesh (Siddiqui et. al. 1989), Andaman Islands Awasthi, 1991 ), Rajasthan ( Das, 1997 ), Madhya Pradesh (Vivek Kumar & S.K.Jain, 1998; Singh et. al., 1999), Nepal (Siwakoti & Siwakoti, 2000).

97. Tephrosia purpurea, Linn. (Sarponka), Herb.

The powdered root alongwith whey is used for the treatment of piles.

The root is smoked for the treatment of asthma.

The roots are used as an antidote to snake bite.

Powdered leaves are applied to the worts of cattle.

Loc. Chitrakoot, Karwi (U.P.) 1062.



**Ethn.dist.** Orissa ( Saxena et. al. 1981 ) Uttar Pradesh (Singh & Maheshwari, 1983) Vyasi Valley (Dhyani and Sharma, 1987).  
Uttar Pradesh ( Singh et. al., 1994 ), Andhra Pradesh (Raju, 1995), Bihar (Girach and Aminuddin, 1995) Rajasthan (Das, 1997), Madhya Pradesh ( Jain, 1965 ; Sikarwar, 1993; Samwatsar & Diwanji, 1999).

98. \* **Trigonella emodi, Benth. (Ban methi), Herb.**

The leaves are used as vegetable.

**Loc.** Sarila, Hamirpur (U.P.) 1452.

**Ethn.dist.** Bundelkhand.

99. \* **Trigonella foenumgraecum, Linn. (Methi), Herb.**

The seeds are fried, powdered and used for the treatment of dihorrea.

The leaves are pounded into paste and applied externally for the treatment of inflammation.

The seeds are used as spices.

The leaves are cooked as vegetables.

**Loc.** Kadaura, Hamirpur (U.P.) 1220.

**Ethn.dist.** Bundelkhand.

100. **Uraria picta, Desv. (Prishn Parni, Pithawan), Shrub.**

The dried and powdered plant is used as antidote to the snake bite.

**Loc.** Khiria-Kalan, Hamirpur (U.P.) 1225.

**Ethn.dist.** India (Khanna & Mudgal, 1992).

## ROSACEAE

101. **Potentilla supina, Linn. (Ratanjot), Herb.**

#Powdered roots are used for impotence.

Loc. Hamirpur (U.P.) 1453.

Ethn.dist. Rajasthan (Das, 1997).

102. \* Rosa alba, Linn. (Gulab), Shrub.

Essential oil of Rose applied on temple is useful for the treatment of headache.

Rose water is useful for the treatment of inflammation of eyes.

Loc. Hamirpur (U.P.) 1005.

Ethn.dist. Bundelkhand.

### CRASSULACEAE

103. \* Bryophyllum calycinum, Saliat. (Dhanmantari), Herb.

Expressed juice of the leaves is used to the septic wounds and cuts.

Loc. Kalinjar, Banda (U.P.) 1458.

Ethn.dist. Bundelkhand.

### COMBRETACEAE

104. Anogeissus latifolia, Wall. (Dhaura Bakli), Tree.

The roots are used as an antidote to snake bite and scorpion sting.

The wood is used for making wheels of the cart and other agricultural implements.

Decoction of the stem bark is used in jaundice.

Loc. Naghara, Hamirpur (U.P.) 1471.

Ethn.dist. Gujarat (Gopal and Shah, 1985), Maharashtra (Sharma and Lakshminarasimhan, 1986), Vyasi Valley (Dhyani and

Sharma. 1987 ), Uttar Pradesh ( Khanna et. al., 1996 ),  
 Madhya Pradesh (Jain and Sahu, 1993; Jain, 1995; Painuli  
 & Maheshwari, 1996; Anand Kumar, 1996 : Singh et. al.,  
 1999; Saxena and Patnaik, 2000).

**105. Anogeissus pendula, Edgw. (Kardhai), Tree.**

#Decoction of the powdered seeds is provided for oral  
 administration in dysentary.

The wood is used as fuel.

**Loc.** Naghara, Hamirpur (U.P.) 1473.

**Ethn.dist.** Dhasan Valley (Saxena & Vyas, 1983 ), India (Khanna and  
 Mudgal, 1992).

**106. Terminalia arjuna, W.& A. (Arjun), Tree.**

The expressed juice of leaf is used for the treatment of ear  
 ache.

The powdered bark of the stem along with butter is taken orally  
 for the treatment of dysentery.

Decoction of the stem bark is used as a heart tonic.

Bark is used for tanning.

**Loc.** Chitrakoot, Karwi (U.P.) 1061.

**Ethn.dist.** Calcutta (Chakravarty, 1975), Dhasan Valley ( Saxena & Vyas,  
 1983 ), Himachal Pradesh (Kapur, 1986), India (Khanna and  
 Mudgal, 1992), Uttar Pradesh (Khanna et. al., 1994; Singh  
et. al., 1996), Madhya Pradesh (Jain, 1995; Vivek Kumar &  
 S.K.Jain, 1998).

**107. Terminalia belerica, Rosb. (Bahera), Tree.**

The fruit wall is fried and powdered it is used for the treatment

of cough and constipation.

The decoction of the stem bark is said to be useful for the treatment of jaundice.

Pulp of the fruit is applied on leprotic wounds.

**Loc.** Mahoba (U.P.) 1059.

**Ethn.dist.** Eastern India ( Pal, 1981 ), Assam ( Borthakur, 1981 ).  
Maharashtra ( Shah *et. al.*; 1983), Tamilnadu (Banerjee & Banerjee, 1986), Himachal Pradesh ( Kapur, 1986 ), Vyasi Valley ( Dhyani & Sharma, 1987 ), West Bengal ( Pal & Jain, 1989), India (Khanna & Mudgal, 1992 ), Rajasthan ( Das 1997 ), Madhya Pradesh (Shukla, *et. al.*, 1991; Sikarwar, 1994 ; Samvatsar & Diwanji, 1999 ), Nepal ( Siwakoti & Siwakoti, 2000).

## MYRTACEAE

### 108. Eucalyptus globulus, Labill. (Safeda), Tree.

The root and leaves are pounded into paste and applied externally for the treatment of scorpion sting.

**Loc.** Rivai, Hamirpur (U.P.) 609.

**Ethn.dist.** Tamilnadu ( Banerjee and Banerjee, 1986 ), Nepal Border (Vishva Vihari, 1995), Madhya Pradesh ( Vivek Kumar and S.K.Jain, 1998 ).

### 109. \* Eugenia jambolana, Lam. (Jamun), Tree.

Two and a half leaf is pounded and mixed with water, and is used orally for the treatment of snake bite.

The fruits are eaten.

Fruits are eaten regularly for the treatment of stones in kidney.

The juice of young leaves with sugar is taken orally for the treatment of piles.

The young leaves are pounded and boiled in water and cooled. It is filtered and the filtrate is used to gargle for the treatment of stomatitis.

The young leaves are pounded into paste and mixed with boiled water, it is used to the treatment of stomachache.

Fruits are offered to God for worship.

**Loc.** Rivai, Hamirpur (U.P.) 607.

**Ethn.dist.** Bundelkhand.

**110. Psidium guajava, Linn. (Behi), Tree.**

The decoction of the leaves is used for the treatment of toothache.

Young leaves are pounded and kept inside the mouth for some time, it is said to be useful for the treatment of stomatitis.

Unripe fruit is grinded and applied externally for the treatment of headache.

The fruits are eaten.

**Loc.** Atarra, Banda (U.P.) 988.

**Ethn.dist.** Uttar Pradesh (Singh and Maheshwari, 1983), Tamilnadu (Banerjee and Banerjee 1986), Assam (Borthakur, 1993), Bihar (Girach & Aminuddin, 1995). Nepal (Siwakoti & Siwakoti, 2000).

## LYTHRACEAE

**111. Ammania baccifera, Linn. (Jungli Mehndi, Agia), Herb.**

The leaves are pounded into paste and applied externally for the treatment of skin diseases.

The decoction of the plant is used externally for the treatment of joint pain.

**Loc.** Nimnipar, Banda, (U.P.) 217.

**Ethn.dist.** Dhasan Valley ( Saxena and Vyas, 1983 ), Rajasthan ( Das, 1997), Madhya Pradesh (Khare & Khare, 1999; Samvatsar & Diwanji, 1999).

**112. Lawsonia inermis, Roxb. (Mahndi), Shrub.**

Expressed juice of the leaves is used as blood purifier for the treatment of skin diseases.

It is also said to be useful for general debility and heart diseases.

The fresh leaves are made in to paste and applied on palm and feet, to get cooling effect.

Infusion of the leaves is useful in stomatitis.

Juice of leaves is said to be useful to kill lice of cattle.

**Loc.** Alamkhor, Banda (U.P.) 838.

**Ethn.dist.** Bihar (Gupta, 1981), Eastern India (Pal, 1981), Uttar Pradesh ( Khanna et. al., 1996; Saini, 1996 ), Madhya Pradesh (Khare & Khare, 1999).

**113. Woodfordia fruticosa, Kurz. (Dhai), Herb.**

The decoction of the stem bark is used during general debility.

The powdered plant is said to be useful for the treatment of uterus diseases.

The roots are crushed and used in the treatment of rheumatism in cattle.

**Loc.** Baruasagar, Jhansi (U.P.) 1120.

**Ethn.dist.** Eastern India (Pal, 1981), Himachal Pradesh (Kapur, 1986 ).

Maharashtra (Sharma and Lakshminarasimhan, 1986), Vyasi Valley (Dhyani and Sharma, 1987), Madhya Pradesh (Jain 1965; Shukla *et. al.* 1991), Bihar, (Sahoo & Mudgal, 1993), Assam (Borthakur, 1993), Uttar Pradesh (singh *et. al.*, 1994; Saini, 1996), Nepal (Siwakoti & Siwakoti, 2000).

### ONAGRACEAE

114. Trapa natans., Linn. (Singhara), Rooted floating herb.

#Fresh fruits are eaten, it is said to be useful for the treatment of acidity.

#The fruits are dried and powdered, it is used during general debility

The powdered fruits mixed with butter and sugar. It is provided orally for the treatment of leucorrhoea.

Flour of the dried seeds is cooked and used during fast on festivals.

**Loc.** Kulpahar, Mahoba (U.P.) 1128.

**Ethn.dist.** Rajasthan (Singh & Pandey, 1996), Rajasthan (Das, 1997)

### PASSIFLOREAE

115. Carica papaya, Linn. (Papeeta), Under tree.

A small part of root is finely pounded and taken orally along with water bi a day for about 20 days. It is useful for the treatment of stone in kidney.

The fruits are edible.

Milky juice is used for skin diseases.

Juice of the unripe fruit is used for abortion.



**Loc.** Chitrakoot, Karwi (U.P.) 378.

**Ethn.dist.** Calcutta ( Chakravarty, 1975 ), Bihar ( Tarafder, 1983 ).  
Tamilnadu ( Banerjee and Banerjee, 1986 ), Andaman and  
Nicobar Island ( Bhargava, 1981; Awasthi, 1991 ), Assam  
( Borthakur, 1993 ), Madhya Pradesh ( Jain & Sahu, 1993 ).  
Uttar Pradesh ( Siddiqui *et. al.*, 1989; Saini, 1996 ), Nepal  
( Siwakoti & Siwakoti, 2000).

### CUCURBITACEAE

116.\* **Baniñcasa hispida, Cogh. (Bhura Kumra), Creeper.**

The powdered roots are taken orally with some amount of  
salt along with milk for the treatment of liver complains.

The expressed juice of leaf is provided orally to stop  
bleeding from the wounds.

**Loc.** Chandpurwa, Hamirpur (U.P.) 275.

**Ethn.dist.** Bundelkhand.

117.\* **Citrullus vulgaris, Schrad. (Kaleenda), Prostrate Herb.**

Fruits are eaten for its cooling effects.

The ash of fruitwall mixed with butter is said to be useful for  
the treatment of dry eczema.

**Loc.** Merapur, Hamirpur (U.P.) 383.

**Ethn.dist.** Bundelkhand.

118. **Cucumis melo, Linn. (Kakri), Herb.**

The fruits are edible and it is also used as salad.

**Loc.** Hamirpur (U.P.) 1476.

**Ethn.dist.** Maharashtra and Goa ( Vartak, 1981 ), Vyasi Valley (Dhyani  
and Sharma, 1987). Rajasthan (Singh & Pandey, 1996).



119. Cucumis sativus, Linn. (Khira), Herb.

# Fruit juice given during indigestion.

The fruit is edible and used as salad.

The fruit is used on the festival of 'Krishna Janmashtami'.

**Loc.** Kundaura, Hamirpur (U.P.) 1478.

**Ethn.dist.** Nepal Border (Vishva Vihari, 1995).

120. Cucurbita maxima, Duchesn. (Kaddu), Herb.

The fruit is used as vegetables.

**Loc.** Hamirpur, Hamirpur (U.P.) 1479.

**Ethn.dist.** Arunachal Pradesh (Dam and Hajra, 1981), Vyasi Valley  
(Dhyani and Sharma, 1987).

121. Cucurbita pepo, Linn. (Kumra), Herb.

The fruits are used as vegetable.

**Loc.** Ghatera, Mahoba (U.P.) 1481.

**Ethn.dist.** Vyasi Valley (Dhyani and Sharma, 1987).

122. Lagenaria vulgaris, Ser (Lauki) Climbing herb.

Crushed leaves mixed with sugar is used in jaundice.

A decoction of the fruit mixed with mustard oil is applied on  
goitre.

**Loc.** Kulpahar, Mahoba (U.P.) 1490.

**Ethn.dist.** Bundelkhand.

123. Luffa echinata, Roxb. (Ban Chadhel) Climbing herb.

The roots are rubbed and the paste is applied to the boils.

**Loc.** Morena, Morena (M.P.) 1491.

**Ethn.dist.** Madhya Pradesh (Painuli & Maheshwari, 1996).

124. Momordica dioica, Roxb. (Parora) Climbing Herb.

Fruit and leaf juice is said to be useful for the treatment of piles and jaundice.

The root extract alongwith fruit juice is recommended for oral administration during snake bite and scorpion sting.

The fresh roots are used for boils.

The fruit is used as vegetables.

**Loc.** Mauranipur, Jhansi (U.P.) 869.

**Ethn.dist.** Bundelkhand (Saxena and Vyas, 1981 ). Assam ( Borthakur, 1993 ), Uttar Pradesh ( Khanna et. al. 1996 ), Madhya Pradesh ( Sikarwar, 1994; Painuli & Maheshwari, 1996; Maheshwari 1996).

## CACTACEAE

125. Opuntia dillenii, Haw.; DC. (Nagphani), Shrub.

Poultice of the fleshy stem is used for the treatment of boils of the cattle.

**Loc.** Nimnipar, Banda (U.P.) 1493.

**Ethn.dist.** Assam (Borthakur, 1993), Uttar Pradesh (Singh et. al., 1994; Bajpayee and Dixit, 1996).

## UMBELLIFERAE

126. Centella asiatica, (Linn) Urban. (Brahmi), Herb.

Infusion of the plant is supposed to be a brain tonic.

The plant is used for the treatment of skin diseases and dysentery.

Extract of the leaves is provided for oral administration to cure liver ailments and gastric troubles.

The plant is used as vegetable.

**Loc.** Phuta Kuwan, Banda (U.P.) 1496.

**Ethn.dist.** Orissa ( Saxena et. al., 1981 ), Bihar ( Gupta, 1981), Nilgiris (Abraham, 1981), Assam ( Hajra and Baishya, 1981), West Bengal (Das et. al.; 1983 ), Himachal Pradesh (Kapur, 1986 ), Tamilnadu ( Banerjee and Banerjee, 1986 ), Vyasi Valley (Dhyani and Sharma, 1987), Tehri, Uttar Pradesh( Badoni, 1990), India ( Khanna and Mudgal, 1992 ), Bihar (Sahoo and Mudgal, 1993), Nepal (Siwakoti & Siwakoti, 2000).

127. Hydrocotyle rotundifolia, Roxb. (Mandook-Parni), Herb.

The plant is powdered and used in eczema and other skin diseases.

**Loc.** Chitrakut, Karwi (U.P.) 1498.

**Ethn.dist.** Assam (Hajra and Baishya, 1981).

128. Trachyspermum ammi, Linn. Sprague. (Ajwain), Herb.

The decoction of the seed is used for the treatment of piles.

The powdered seeds are used to relieve constipation.

The seeds along with 'gur' are taken in equal amount and used for oral administration for the treatment of urticaria.

The powdered seeds are used for the treatment of worms.

The powdered seeds with hot milk are given in backache and headache caused by menstrual disorders.

**Loc.** Bharuwasumerpur, Hamirpur (U.P.) 1027.

**Ethn.dist.** Orissa ( Saxena et. al., 1981 ), Assam (Borthakur, 1981), Eastern India (Pal, 1981). Dhasan Valley (Saxena and Vyas, 1983), Rajasthan (Singh & Pandey, 1996).

## RUBIACEAE

129. Adina cordifolia, Hook F. (Haldu), Tree.

The wood is used for making furniture, musical and agricultural implements.

**Loc.** Baruasagar, Jhansi (U.P.) 1501.

**Ethn.dist.** Bihar (Tarafer and Chaudhuri, 1981), Uttar Pradesh (Singh and Maheshwari, 1985), VyasValley (Dhyani & Sharma, 1987). India (Khanna and Mudgal, 1992), Uttar Pradesh (Singh *et. al.*, 1994), Madhya Pradesh (Jain, 1963; Singh *et. al.*, 1999).

130. Gardenia gummifera, Linn. f. (Dikamali), Shrub.

The gum is applied to the wounds of cattle.

Ripe fruits and seeds are eaten.

**Loc.** Barua Sagar, Jhansi (U.P.), 1503.

**Ethn.dist.** Madhya Pradesh (Jain 1963, 1965)

131. Mitragyna parvifolia, (Roxb.) Korth. (Kaima), Tree.

The wood is used for making musical and agricultural impliments, it is also used as timber.

Fibres obtained from the plant are used to make ropes.

Wood is used for worship in place of sandal wood.

**Loc.** Chitrakut, Karwi (U.P.) 1504.

**Ethn.dist.** Uttar Pradesh (Singh and Maheshwari, 1985), Maharashtra (Sharma and Lakshminarsimhan, 1986). Madhya Pradesh (Shukla *et. al.*, 1991), India (Khanna and Mudgal, 1992), Madhya Pradesh (Jain, 1995; Singh *et. al.*, 1999).

132. \* Morinda tinctoria, Roxb. (Achhi), Tree.

The leaf juice is used for the treatment of skin diseases.

The root is grinded and applied externally for the treatment of scorpion sting.

Loc. Biwar, Hamirpur (U.P.) 875.

Ethn.dist. Bundelkhand.

133. Oldenlandia corymbosa, Linn. (Pittapapra), Herb.

A decoction of the roots is provided orally during jaundice and other disorders of liver.

Juice of the plant is applied externally during measles.

Loc. Rora, Jhansi (U.P.) 1505.

Ethn.dist. Gujrat (Gopal & Shah, 1985), Vyasi Valley (Dhyani and Sharma, 1987), Rajasthan (Das, 1997)

### COMPOSITAE

134. Ageratum conyzoides, Linn. (Sahadei), Herb.

The leaves are pounded in to paste and applied externally for the treatment of cuts and wounds.

The leaves are used as an antidote to snake bite.

Loc. Kalinjar, Banda (U.P.) 117.

Ethn.dist. Nilgiris ( Abraham, 1981 ). Dhasan Valley ( Saxena and Vyas, 1983 ) , West Bengal ( Das et. al. 1983 ), Meghalaya ( Neogi et. al., 1989), Uttar Pradesh ( Siddiqui et.al., 1989), Car Nicobar Island ( Dagar, 1989 ), India ( Khanna and Mudgal, 1992), Bihar ( Sahoo and Mudgal, 1993 ), Madhya Pradesh ( Jain and Sahu, 1993 ; Bhalla et.al., 1996; Samwatsar & Diwanji, 1996, Vivek Kumar & S.K.Jain, 1998).

135. Artemisia vulgaris, Linn. (Nagadaura), Herb.

The plant is said to be antidote to scorpionsting and snake bite.

The young leaves are taken orally for the treatment of general debility.

A decoction of leaves is used as antihelmintic for intestinal worms.

**Loc.** Kalinjar, Banda (U.P.) 1507.

**Ethn.dist.** West Bengal ( Das et. al., 1983 ), Uttar Pradesh (Siddiqui et. al., 1989).

136. Bidens biternata, (Laur) Merr. (Lukharta), Herb.

#The leaves are used as an antidote to snake bite.

**Loc.** Naghara, Hamirpur (U.P.) 1508.

**Ethn.dist.** Madhya Pradesh (Bhalla et. al., 1996)

137. Blumea lacera, DC. (Kukroundha), Herb.

The leaves are pounded into paste and applied externally on eyes during conjunctivitis.

Extract of the plant is provided orally in fever and bronchitis.

**Loc.** Kalinjar, Banda (U.P.) 1509.

**Ethn.dist.** Maharashtra ( Shah et. al., 1983 ), Rajasthan (Sharma, 1990), Madhya Pradesh (Bhalla et. al., 1996), Uttar Pradesh (Khanna et. al., 1996 ), Rajasthan ( Das, 1997 ), Nepal (Siwakoti & Siwakoti, 2000).

138. Echinops echinatus, Roxb. (Unt. Katara), Herb.

The powdered root is used for the treatment of wounds in cattle.

The decoction of the leaves is used for the treatment of malarial fever.

The plant is pounded in to paste and provided orally to the cattle for the treatment of cold and cough.

The decoction of the root is used for the treatment of skin diseases of cattle.

+The root is used for totem.

**Loc.** Bharuwa Sumerpur, Hamirpur (U.P.) 575.

**Ethn.dist.** Bundelkhand ( Saxena & Vyas, 1981 ), Vyasi Valley ( Dhyani and Sharma, 1987), Rajasthan (Singh and Pandey, 1996 ), Madhya Pradesh (Jain, 1995 ; Bhalla *et. al.*, 1996).

**139. Eclipta alba, Hassk. (Bhangra), Herb.**

The expressed juice of the plant is used as hair tonic.

The expressed juice of the leaves is used for the treatment of cuts and wounds.

The plant is powdered alongwith cloves. The powder is provided orally with butter for the treatment of snakebite.

The expressed juice of the plant is used for the treatment of diarrhoea and dysentery.

The paste of whole plant is useful for the treatment of sores of cattle.

**Loc.** Alamkhor, Banda (U.P.) 580.

**Ethn.dist.** Eastern India (Pal, 1981), Maharashtra ( Shah *et. al.*, 1983), Himachal Pradesh (Kapur, 1986), Uttar Pradesh (Khanna *et. al.*, 1994), Nepal Border ( Vishva Vihari, 1995 ), Madhya Pradesh (Bhalla *et. al.*, 1996), Rajasthan (Das, 1997).

**140. Elephantopus scaber, Linn. (Jangli gobhi), Herb.**

A paste prepared with the roots is applied to the wounds of



the cattle.

The roots are pounded into paste and applied on pimples.

A decoction of the roots is used for the treatment of urinary calculus and dysentery.

**Loc.** Matatila, Lalitpur (U.P.) 1511.

**Ethn.dist.** Bihar ( Gupta, 1981 ), Meghalaya ( Kharkongor and Joseph, 1981 ), Orissa ( Saxena et. al., 1981 ), Bihar (Tarafder, 1983), India (Khanna and Mudgal, 1992), Bihar (Sahoo and Mudgal, 1993 ), Andhra Pradesh ( Raju, 1995 ), Bihar (Girach & Aminuddin, 1995 ), Madhya Pradesh ( Jain, 1963, 1965a; Shukla et. al., 1991; Bhalla et. al., 1996), Uttar Pradesh (Singh and Maheshwari, 1983 ; Saini, 1996 ), Nepal ( Siwakoti & Siwakoti, 2000)

**141.\* Helianthus annus; Linn. (Surajmukhi), Herb.**

The leaf juice is applied externally for the treatment of eczema.

**Loc.** Banda (U.P.) 1201.

**Ethn.dist.** Bundelkhand.

**142. Launaea nudicaulis, Hook. (Kuttachara), Herb.**

The root is grinded and given orally once for 7 days along with mother milk to the child suffering from merasmus.

The pounded leaves are provided to increase lactation.

**Loc.** Kulpahar, Mahoba (U.P.) 827.

**Ethn.dist.** Madhya Pradesh (Bhalla et. al., 1996).

**143. Sonchus arvensis, Linn. (Badi Sahadei), Herb.**

The decoction of the roots is prescribed for the treatment of jaundice.

**Loc.** Sirsa, Jalaun (U.P.) 1571.



**Ethn.dist.** Himachal Pradesh (Kapur, 1986), Madhya Pradesh (Bhalla *et. al.*, 1996).

144. Sphaeranthus indicus Linn. (Mundi), Herb.

The decoction of the plant is said to be useful for the treatment of stones in kidney.

Dried and powdered inflorescence mixed with sugar is used as brain and eye tonic.

The roots are powdered and used for piles.

**Loc.** Kalinjar, Banda (U.P.) 1055.

**Ethn.dist.** Bihar (Tarafder and Chaudhuri, 1981), Dhasan Valley (Saxena and Vyas, 1983), Maharashtra (Shah *et. al.*, 1983), Meghalaya (Neogi *et. al.*, 1989), India (Khanna and Mudgal, 1992), Madhya Pradesh (Jain, 1965, 1995; Bhalla *et. al.*, 1996), Uttar Pradesh (Siddiqui *et. al.*, 1989; Saini, 1996), Rajasthan (Singh and Pandey, 1996; Das, 1997), Nepal (Siwakoti & Siwakoti, 2000).

145. Tagetes erecta, Linn. (Genda), Herb.

# Expressed juice of the flower is said to be useful for the treatment of bone fracture and skin diseases.

leaf decoction is applied over forehead to relieve headache.

**Loc.** Lama, Banda (U.P.) 1058.

**Ethn.dist.** Uttar Pradesh (Khanna *et. al.*, 1996).

146. Tricholepis glaberrima, DC. (Brahmadandi), Herb.

Powdered plant is provided for the treatment of leprosy.

**Loc.** Talbehat, Lalitpur (U.P.) 1518.

**Ethn.dist.** Dhasan Valley (Saxena and Vyas, 1983).

147. Tridax procumbens, L. (Baguna), Herb .

The leaves are pounded in to paste and used for the treatment of cuts and wounds.

# The leaf and stem juice is taken orally for the treatment of intestinal worms in the children.

Loc. Banda (U.P.) 1082.

Ethn.dist. Maharashtra ( Sharma and Lakshminarasimhan, 1986 ), Himachal Pradesh ( Kapur, 1986 ), Maharashtra (Mudaliar et. al., 1987), India (Khanna and Mudgal, 1992), Bihar (Sahoo & Mudgal, 1993), Uttar Pradesh (Singh et. al., 1994; Khanna et. al., 1996), Madhya Pradesh (Bhalla et. al., 1996; Samvatsar & Diwanji, 1996); Maheshwari, 1996), Rajasthan (Das, 1997).

148. Vernonia anthelminticum, Willd. (Kala Zira), Herb.

#The powdered seed are applied externally alongwith brassica oil for the treatment of paralysis.

#The powdered root are said to be useful for the treatment of snake bite.

Loc. Datiya (M.P.) 1230.

Ethn.dist. Madhya Pradesh ( Maheshwari, 1996 ), Nepal (Siwakoti & Siwakoti, 2000).

149. Vernonia cinerea, Less. (Sahadevi), Herb.

#Plant is pounded into paste alongwith black peeper and provided orally to the cattle suffering from diarrhoea.

#The expressed juice of the leaves is said to be useful for the treatment of piles.

Loc. Sirsi, Hamirpur (U.P.) 1089.

Ethn.dist. Dhasan Valley ( Saxena and Vyas. 1983 ). Maharashtra (Shah et. al., 1983), Bihar ( Sahoo & Mudgal, 1993), Uttar

Pradesh (Khanna et. al., 1996), Rajasthan ( Das. 1997 ),  
Madhya Pradesh (Bhalla et. al. 1996; Samvatsar & Diwanji.  
1999 ), Nepal ( Siwakoti & Siwakoti, 2000).

**150. Xanthium strumarium, Linn. (Chhota Gokhru), Herb.**

The root is pounded into paste and used as poultice for the treatment of boils.

The decoction of the plant is said to be useful for the treatment of malaria.

The powder of the whole plant is said to be useful for the treatment of cancer.

**Loc.** Kuiya, Jalaun (U.P.) 1121.

**Ethn.dist.** Assam (Hazra and Baishya, 1981), Dhasan Valley ( Saxena & Vyas, 1983 ), Meghalaya (Neogi et. al., 1989), West Bengal (Pal & Jain, 1989), Uttar Pradesh (Singh et. al., 1994), Madhya Pradesh (Jain, 1963; Bhalla et. al., 1996).

## PLUMBAGINACEAE

**151. Plumbago zeylanica, Linn. (Chitrak), Herb.**

The decoction of the root is useful for the treatment of fever.

The root is pounded in to paste and applied externally for the treatment of thrombophlobitis.

+The root is used as totem.

**Loc.** Kalinjar, Banda (U.P.) 12.15.

**Ethn.dist.** Orissa (Saxena et. al., 1981), Bihar (Tarafer, 1983), Himachal Pradesh (Kapur, 1986), Meghalaya (Neogi et. al. 1989), India (Khanna and Mudgal, 1992), Bihar (Sahoo and Mudgal, 1993), Uttar Pradesh ( Siddiqui et. al., 1989 ; Singh et. al., 1994), Rajasthan ( Das. 1997 ), Madhya Pradesh ( Jain, 1965;

Maheshwari, 1996 ; Khare & Khare, 1999 ; Samvatsar & Diwanji, 1999), Nepal (Siwakoti & Siwakoti, 2000)

### SAPATACEAE

**152. Madhuca indica, J.F.Gmel. (Mahua), Tree.**

The seed oil is applied externally as massage oil for the treatment of fever.

The flowers are dried and powdered, it is locally known as murka. It is eaten by the poor people.

Some times the powder is boiled with milk and is used to eat during general weakness.

The flowers are dried and distilled for the preparation of Mahua wine, locally it is known as 'Tharra'.

The oil cakes are used as manure.

The wood is used as timber and also used for making agricultural implements.

**Loc.** Alamkhor, Banda (U.P.) 917.

**Ethn.dist.** Vyasi Valley (Dhyani and Sharma, 1987), Uttar Pradesh (Siddiqui et. al., 1989), Uttar Pradesh (Saini, 1996), Madhya Pradesh (Jain, 1963; Jain and Sahu, 1993; Khare & Khare, 1999).

### EBENACEAE

**153. Diospyros melanoxylon, Brand. (Tendu), Tree.**

The gum is used for the treatment of jaundice.

The decoction of the gum is used for the treatment of typhoid.

Half riped fruits are eaten for the treatment of diarrhoea and

dysentery.

The decoction of stem bark is used for the treatment of stomachache.

**Loc.** Manikpur, Karwi (U.P.) 527.

**Ethn.dist.** India (Khanna and Mudgal, 1992), Bihar (Sahoo and Mudgal, 1993), Andhra Pradesh (Raju, 1995), Rajasthan (Das, 1997), Madhya Pradesh (Jain, 1963; Shukla *et al.*, 1991; Maheshwari, 1996; Singh *et al.*, 1999), Nepal (Siwakoti & Siwakoti, 2000).

### OLEACEAE

#### 154. Nyctanthes arbortristis, Linn. (Harsingar), Tree.

# The decoction of leaf is made, cooled and filtered it is said to be useful for the treatment of joint pain and siatica.

# Extract of the leaves is used for malarial fever.

**Loc.** Chitrakoot, Karwi (U.P.) 895.

**Ethn.dist.** Bihar (Gupta, 1981), Maharashtra (Sharma and Lakshmi Narasimhan, 1986), Bihar (Sahoo & Mudgal, 1993), Nepal Border (Vishva Vihari, 1995), Bihar (Girach & Aminuddin, 1995), Uttar Pradesh (Singh and Maheshwari, 1983, 1985; Khanna *et al.*, 1996, Saini, 1996), Rajasthan (Das, 1997), Madhya Pradesh (Jain, 1965, 1981, 1995; Singh *et al.*, 1999; Samvatsar & Diwanji, 1999), Nepal (Siwakoti & Siwakoti, 2000).

### APOCYNACEAE

#### 155. Holarrhena antidysenterica, Wall Cat. (Dudhi), Tree.

The powdered bark, seeds and leaves are used for the treatment of dysentery and diarrhoea.

Decoction of the stem bark with black pepper is used in

malaria.

**Loc.** Jalaun, Jalaun (U.P.) 1519.

**Ethn.dist.** Assam (Hajra and Baishya, 1981 ), Orissa ( Saxena et. al., 1981 ), Uttar Pradesh ( Singh and Maheshwary, 1983 ), Maharashtra ( Sharma and Lakshminarsimhan, 1986 ), Tamilnadu (Banerjee and Banerjee, 1986), Vyasi Valley (Dhyani and Sharma, 1987), India (Khanna and Mudgal, 1992), Bihar ( Sahoo and Mudgal, 1993), Bihar ( Girach and Aminuddin, 1995), Madhya Pradesh (Jain, 1965; Saxena & Patnaik, 2000).

**156. Nerium indicum, Mill. (Lal Kaner), Shrub.**

The leaves are dried and powdered, it is used regularly to get rid off with the ediction of opium.

The root bark is boild with brassica oil and filtered, it is used for the treatment of skin diseases.

Flowers offered to God.

+Roots used as totem.

**Loc.** Jaitpur, Hamirpur (U.P.) 886.

**Ethn.dist.** Bihar (Tarafter, 1983), Tamil nadu ( Banerjee and Banerjee, 1986), Himachal Pradesh ( Kapur, 1986 ), Uttar Pradesh ( Siddiqui et. al., 1989 ), Rajasthan ( Sharma, 1990 ), Uttar Pradesh ( Khanna et. al. 1996 ; Saini, 1996 ). Dhasan Valley (Saxena and Vyas, 1983)

**157. Nerium odorum, Soland. (Safed Kaner), Shrub.**

The root is pounded and made in to paste, it is applied for the treatment of backache.

The dried root is powdered and applied on the temple during headache.

**Loc.** Sirsi, Hamirpur (U.P.) 887.

**Ethn.dist.** Himachal Pradesh ( Kapur, 1986 ), Bihar (Tarafder, 1983),  
Tamilnadu ( Banerjee and Banerjee, 1986 ), Uttar Pradesh  
(Siddiqui et al., 1989)

158. \*Vinca rosea, Linn. (Sada Bahar), Herb.

The juice of the leaf is rubbed on the joints during joint pain.

**Loc.** Atarra, Banda (U.P.) 1119.

**Ethn.dist.** Bundelkhand.

159. Wrightia tinctoria, Br. (Kalidudhi) Tree.

A decoction of root bark for the treatment of dysentery and fever.

The latex is applied on wounds for healing.

A blue dye is obtained from the leaves.

**Loc.** Barua-Sagar, Jhansi (U.P.) 1521.

**Ethn.dist.** India (Mitre, 1981), Maharashtra (Shah et. al. 1983 ; Sharma and Lakshminarasimhan, 1986), India ( Khanna & Mudgal, 1992) Rajasthan (Das, 1997)

## ASCLEPIADACEAE

160. Calotropis gigantea, R.Br. (, Akaua), Shrub.

The root is grinded and made into paste it is applied externally on scorpion sting and snakebite.

The powdered leaves are used externally for the treatment of skin diseases.

The milky juice is applied externally for the treatment of eczema and ringworm.

The twig is used as tooth brush for the treatment of pyor rhoea.



+ Plant used for totem.

Flowers offered to God for worship.

**Loc.** Kalingar, Banda (U.P.) 303.

**Ethn.dist.** Eastern India ( Pal, 1981 ), Sikkim ( Krishna and Das, 1983 ), Tamilnadu ( Banerjee and Banerjee, 1986 ), Orissa (Amineeddin, *et. al.*, 1993), Bihar ( Tarafder, 1983; Sahoo and Mudgal, 1993), Uttar Pradesh ( Saini, 1996 ), Rajasthan ( Das, 1997), Madhya Pradesh (Jain, 1965; Shukla *et. al.*, 1991; Jain and Sahu, 1993; Samvatsar and Diwanji, 1999; Saxena and Patnaik, 2000), Nepal (Siwakoti and Siwakoti, 2000).

**161. Calotropis procera, R.B. (Madar Akua), Shrub.**

One young flower bud is taken orally along with gur regularly for 3 days in morning hour. It is said to be useful for the treatment of malarial fever.

The flower buds are dried and powdered, it is mixed with equal amount of powdered black pepper one gram of this powder is used orally for the treatment of bronchial asthma.

The juice of the root is used for oral administration for the treatment of snakebite.

**Loc.** Sumerpur, Hamirpur (U.P.) 293.

**Ethn.dist.** Himachal Pradesh ( Kapur, 1986 ), Bihar ( Tarafer, 1983 ), Assam ( Hajra and Baishya, 1981 ), Calcutta ( Chakraverty, 1975), Rajasthan (Singh, 1983; Sharma, 1990), Uttar Pradesh (Singh and Maheshwari, 1983; Singh, 1986; Siddiqui *et. al.*, 1989; Singh *et. al.*, 1994, 1996; Saini, 1996), Madhya Pradesh (Jain and Sahu, 1993; Khare & Khare, 1999; Samvatsar & Diwanji, 1999).

**162. Gymnema sylvestre, R.Br. (Medhasingi), Climbing shrub**

Roots of the plant are used as an antidote to snakebite.



Leaves are used for the treatment of diabetics.

**Loc.** Badi Madhaiyan, Banda (U.P.) 1523.

**Ethn.dist.** Madhya Pradesh (Jain, 1965), Dhasan, Valley (Saxena and Vyas, 1983), India (Khanna and Mudgal, 1992), Madhya Pradesh (Vivek Kumar and Jain, 1998).

**163. Hemidesmus indicus R.Br. (Anantmool), Prostrate shrub.**

The root is pounded into paste and applied externally on the boils.

The decoction of root is used for the treatment of fever.

The root is pounded into paste it is applied on snakebite.

The bangle is made from its stem and placed on the wrist. It is believed that it induces lactation in mother.

**Loc.** Kalinjar, Banda (U.P.) 804.

**Ethn.dist.** Orissa (Saxena *et. al.*, 1981), Bihar (Gupta, 1981), Dhasan, Valley (Saxena and Vyas, 1983), Bihar (Sahoo and Mudgal, 1993), Bihar (Girach & Aminuddin, 1995), Rajasthan (Singh and Pandey, 1996), Uttar Pradesh (Singh and Maheshwari, 1983; Singh *et. al.* 1994; Khanna *et. al.*, 1996; Singh *et. al.*, 1996), Madhya Pradesh (Jain, 1965; Jain and Sahu, 1993; Sikarwar, 1993; Khare & Khare, 1999; Samvatsar & Diwanji, 1999).

**164. Trichodesma zeylanicum, Br. (Ondhipulai), Herb.**

Expressed juice of the leaves is provided to the children for the treatment of dysentery.

**Loc.** Atarra, Banda (U.P.) 1527.

**Ethn.dist.** Dhasan Valley (Saxena and Vyas, 1983), India (Khanna & Mudgal, 1992)

165. Tylophora indica, (Burm.f.) Merr. (Shivlingi), Climber

Juice of the fresh leaves is taken orally during empty stomach. It gives immediate relief to the person suffering from bronchial asthma.

**Loc.** Kalinjar, Banda (U.P.) 1525.

**Ethn.dist.** Dhasan Valley (Saxena and Vyas, 1983), Himachal Pradesh (Kapur, 1986), Madhya Pradesh (Jain, 1995)

### BORAGINACEAE

166. Cordia macleodii, Hook f. & Thoms. (Dahipalas), Tree.

# Fruit juice is taken orally for the treatment of jaundice.

# The decoction of root is useful for the treatment of debility and weakness of liver.

**Loc.** Chitrakut, Karwi (U.P.) 416.

**Ethn.dist.** Madhya Pradesh (Saxena and Patnaik, 2000).

167.\* Cordia myxa, Linn. (Labhera), Tree

The fruits are useful for the treatment of jaundice.

The decoction of the fruit is said to be useful for the malfunctioning of liver.

**Loc.** Nadigaon, Jalaun (U.P.) 1597.

**Ethn.dist.** Bundelkhand.

### CONVOLVULACEAE

168. Convolvulus arvensis, Linn. (Hariyari), Herb

The decoction of the plant is made with the milk and filtered. this milk is provided orally for the treatment of impotence.

#The fresh plants are used as fooder to improve lactaon in cattle.

**Loc.** Bharuwa Sumerpur, Hamirpur (U.P.) 405.

**Ethn.dist.** Madhya Pradesh (Painuli and Maheshwari, 1996)

169.\* Convolvulus pluricaulis, chois. (Sikhauli), Herb

The expressed juice of plant is used as brain tonic.

The leaves are pounded and taken orally for the treatment of diabetes.

The plant is pounded with black peeper and provided orally to the cattle suffering from paralytic attack.

**Loc.** Guraha, Banda (U.P.) 397.

**Ethn.dist.** Bundelkhand.

170. Cuscuta reflexa, Roxb. (Amar bal), Creeper

The decoction of the plant is made. It is used regularly as local application for the treatment of dandruff, whitening and thinning of hairs.

The stem is pounded into paste and used orally as laxative.

The stem of this plant alongwith the fruits of Cassia tora are pounded in to paste and applied externally for the treatment of eczema.

The expressed juice of the plant is said to be used as infertility drug.

**Loc.** Kudaura, Hamirpur (U.P.) 501.

**Ethn.dist.** Bihar (Tarafer and Chaudhuri, 1981), Dhasan Valley (Saxena and Vyas, 1983), Assam and Arunachal Pradesh (Baruah and Sharma, 1987), India (Khanna and Mudgal, 1992). Bihar (Girach & Aminuddin, 1995), Uttar Pradesh (Siddiqui et. al.).

1989; Khanna et. al., 1996 : Saini, 1996 ), Madhya Pradesh (Sikarwar, 1993; Samvatsar & Diwanji, 1999 ), Nepal ( Siwakoti & Siwakoti, 2000).

**171. Ipomoea aquatica, Forsk. (Nalichibaji), Herb**

The root is pounded in to paste and applied externally on the scorpion sting.

The dried leaves are used for smoking.

**Loc.** Chitrakut, Karwi (U.P.) 805.

**Ethn.dist.** Uttar Pradesh (Khanna et. al., 1996 ; Bajpayee and Dixit, 1996; Saini, 1996), Rajasthan (Das, 1997)

**172. Ipomoea fistulosa, Mart. (Besharam), Herb**

# The fresh leaves is warmed with butter and applied externally on boils.

Buds are made into paste and used to cure scorpionsting.

**Loc.** Chandpurwa, Hamirpur (U.P.) 809.

**Ethn.dist.** Madhya Pradesh ( Jain & Sahu, 1993 ), Uttar Pradesh ( Singh et. al., 1994; 1996 ) Rajasthan (Das, 1997), Madhya Pradesh (Vivek Kumar & S.K.Jain, 1998)

**173. Ipomoea nil, (L) Rath. (Kaladana), Herb**

The seeds are powdered and used for the treatment of cough and cold.

It is also said to be useful for the treatment of liver disease.

**Loc.** Chitrakoot, Karwi (U.P.) 796.

**Ethn.dist.** Tamilnadu (Banerjee & Banerjee, 1986) Rajasthan (Das, 1997)

**174. Ipomoea pestigridis, L. (Gangle bel), Herb**

The plant is pounded into paste and applied externally on the affected part of the dog bite.

Leaves are grinded and applied externally on the boils.

**Loc.** Kusumilia, Jalaun (U.P.) 795.

**Ethn.dist.** Vyasi Valley (Dhyani and Sharma, 1987), Rajasthan (Das, 1997).

175. \* Ipomoea turpathum, R.Br. (Nisoeth), Herb

The fresh root is grinded and applied externally on the scorpion sting and snake bite.

**Loc.** Kalinjar, Banda (U.P.) 797.

**Ethn.dist.** Bundelkhand.

### SOLANACEAE

176. Capsicum annum, L.Watt. (Lal mirch), Herb

The fruits are pounded with water and applied on dog-bite.

The fruits are used as spices and pickles.

**Loc.** Kadaura, Hamirpur (U.P.) 1529.

**Ethn.dist.** Assam (Hajra and Baishya, 1981), Arunachal Pradesh (Das and Hajra, 1981), Vyasi Valley (Dhyani and Sharma, 1987), Uttar Pradesh (Khanna *et. al.*, 1996).

177. Datura fastuosa, Linn. (Kala Dhatura), Shrub

The fruits are used in hydrophobia.

The leaves are used for the treatment of boils.

# Dried leaves are smoked in asthma.

**Loc.** Orchha, Jhansi (U.P.) 1530.

**Ethn.dist.** Bihar (Sahoo and Mudgal, 1993), Rajasthan (Das, 1997).

178. Datura innoxia, Mill. (Dhatura), Shrub

#The root is tied on the wrist for the treatment of malaria.

#The leaves are pounded into paste and applied externally for the treatment of itch.

The leaf is warmed and put on the boil for its treatment.

**Loc.** Kalinjar, Banda (U.P.) 515.

**Ethn.dist.** Uttar Pradesh ( Singh *et. al.*, 1996 ), Madhya Pradesh (Samwatsar & Diwanji, 1996).

#### 179. Datura metal, Linn. (*Datura*), Shrub

The leaves of Anona squamosa, Linn and the leaves of Datura metal are mixed together and made into paste, it is said to be useful for the treatment of snake bite.

The fruits are dried and powdered, it is applied locally on eczema.

Flowers and fruits are used for the worship of Lord Shiva.

The seeds are pounded into paste and applied externally for the treatment of boils.

The poultice of the unripe fruit is used for the treatment of boils of cattles.

The decoction of root is useful for the treatment of malaria.

The poultice of the unripe fruits is used for the treatment of eruption in cattles.

**Loc.** Lama, Banda (U.P.) 511.

**Ethn.dist.** Himachal Pradesh (Kapur, 1986), Vyasi Valley ( Dhyani and Sharma, 1987 ), India ( Khanna & Mudgal, 1992 ), Assam ( Borthakur, 1993 ), Uttar Pradesh ( Siddiqui *et. al.*, 1989; Khanna *et. al.*, 1996; Saini, 1996 ), Madhya Pradesh (Samvatsar & Diwanji, 1999 ), Nepal (Siwakoti & Siwakoti, 2000).

#### 180. Nicotiana tabacum, Linn. (*Tambaku*), Herb

The leaves are pounded and given orally with goat milk to the

patient suffering from snake bite.

The dried and powdered leaves of this plant along with the leaves of cannabis sativa are smoked for the treatment of paralysis.

Dried and powdered leaves are used in pyorrhoea.

The gently warmed leaves are tied on the testicles for the treatment of hydrocele.

**Loc.** Sirsi, Hamirpur (U.P.) 891.

**Ethn.dist.** Vyasi Valley (Dhyani and Sharma, 1987), Andaman and Nicobar Islands (Awasthi, 1987), Orissa (Aminuddin *et. al.*, 1993), Uttar Pradesh (Khanna *et. al.*, 1996; Saini, 1996), Madhya Pradesh (Jain, 1963, 1965; Vivek Kumar & S.K. Jain, 1998).

**181. Physalis minima, Linn. (Jharpota), Herb**

Aqueous leaf extract is used during constipation.

The fruits are eaten.

**Loc.** Talbehat, Lalitpur (U.P.) 1532.

**Ethn.dist.** Vyasi Valley (Dhyani and Sharma, 1987), Car Nicobar Island (Dagar, 1989), Tehri, Uttar Pradesh (Badoni, 1990), Madhya Pradesh (Sikarwar, 1994), Uttar Pradesh (Bajpayee and Dixit, 1996).

**182. Solanum indicum, L. (Bhatkotari), Herb**

The leaf paste is applied on the wound appeared due to snake bite.

The root is boiled with the milk and filtered. It is taken orally for the treatment of general debility.

The powdered seeds are boiled with water and the vapours are inhaled for the treatment of unconsciousness.



+ Plant used in totem.

A small piece of the twig is tied to the arm to get relief from conjunctivitis.

**Loc.** Chitrakoot, Karwi (U.P.) 1037.

**Ethn.dist.** Maharashtra and Goa ( Vartak, 1981 ), Himachal Pradesh (Kapur, 1986), Maharashtra (Sharma and Lakshmi-narasimhan, 1986), Tamilnadu ( Banerjee and Banerjee, 1986 ), Vyasi Valley (Dhyani and Sharma, 1987 ), Madhya Pradesh (Jain and Sahu, 1993), Rajasthan (Das, 1997).

**183. Solanum melongena, Linn. (Bhata), Herb**

About 100 g. of boiled fruit mixed with about 20 g. of honey is said to be useful for the treatment of insomnia.

**Loc.** Kundaura, Hamirpur (U.P.) 1043.

**Ethn.dist.** India (Khanna and Mudgal, 1992).

**184. Solanum nigrum, Linn. (Makai), Herb**

#The juice of the plant is used for the treatment of jaundice.

The leaf juice is warm and used for the treatment of earache.

The plant is used as vegetable.

The fruits are eaten.

The leaves are pounded with water and applied as poultice on leucoderma.

**Loc.** Bharuwa Sumerpur, Hamirpur (U.P.), 1040.

**Ethn.dist.** Nilgiris ( Abraham, 1981 ), Maharashtra and Goa (Vartak, 1981), West Bengal ( Das et. al., 1983 ), Tamilnadu (Banerjee and Banerjee, 1986), Himachal Pradesh ( Kapur, 1986 ), Andaman and Nicobar Islands (Awasthi, 1987), Uttar Pradesh (Siddiqui et. al., 1989), India ( Khanna and Mudgal, 1992), Andra Pradesh (Raju, 1995), Uttar Pradesh ( Khanna et. al.



1996; Bajpayee and Dixit, 1996, Saini, 1996), Rajasthan (Das, 1997)

**185. Solanum suratense, Linn.(Chhoti Kateli), Herb**

The expressed juice of the flower is applied on temple for the treatment of headache.

Fresh root extract mixed with equal quantity of lemon juice, It is applied for one month as a preventive measures against cataract.

#The decoction of plant is said to be useful for the treatment of gonorrhoea.

Root bark is chewed as an antidote to scorpion sting.

+ Plant are used as totam.

**Loc.** Lama, Banda (U.P.) 1041.

**Ethn.dist.** India (Khanna and Mudgal, 1992), Uttar Pradesh (Singh et. al., 1994; 1996), Madhya Pradesh (Samvatsar & Diwanji, 1999).

**186. Solanum xanthocarpum, Schraud and Wendl. (Bhatkatiya), Herb**

The fruits are dried and burned for smoke. The smoke is used for the treatment of toothache.

The juice of flowers is used for the treatment of scorpion sting.

The plant is used for worship in 'Bhaiya Dooj' festival.

The fresh leaves are used in conjunctivitis.

Powdered plants are used as an external application for the treatment of piles and dysentery.

**Loc.** Kalinjar, Banda (U.P.) 1042.

**Ethn.dist.** Himachal Pradesh (Kapur, 1986). Madhya Pradesh (Khare & Khare, 1999).

## SCROPHULARINEAE

187. Alectra parasitica, A.Rich.Var. chitrakutensis, Rau.(Nirgundi), Herb

The plants are useful for the treatment of leprosy and leucoderma.

Loc. Kalinjar, Banda (U.P.) 1535.

Ethn.dist. Dhasan Valley (Saxena and Vyas, 1983)

188. Limnophilia indica, (Linn) Druce. (Kuttra), Herb

#The plant is pounded and made into paste. It is applied on the affected parts of the body caused by the elephantiasis.

Loc. Talbehat, Lalitpur (U.P.) 1537.

Ethn.dist. Rajasthan (Das, 1997)

## PEDALIACEAE

189. Martynia annua, Linn. (Kaua), Shrub

The seeds are powdered and used during meanstrual pain caused by obstruction in menstrual flow.

# The roots are used in scorpionsting.

Loc. Baparetha, Hamirpur (U.P.) 1539.

Ethn.dist. Dhasan Valley (Saxena and Vyas, 1983), Maharashtra (Sharma and Lakshminarasimhan, 1986 ) Vyasi Valley (Dhyani and Sharma, 1987 ), West Bengal ( Pal and Jain, 1989 ), Bihar (Sahoo and Mudgal, 1993). Andhra Pradesh (Jain, 1995).

190. Pedaliium murex, Linn Druce. (Bara Gokhru), Herb

The powdered fruits are mixed with trifla in equal quantity it is used for the treatment of leucorrhoea.

The fruits are used as a tonic to the patient suffering from glycosuria, impotency and gonorrhoea.

**Loc.** Rivai, Hamirpur (U.P.) 925.

**Ethn.dist.** Dhasan Valley (Saxena and Vyas, 1983), Maharashtra (Shah, *et. al.*, 1983), Rajasthan (Singh & Pandey, 1996, Das, 1997).

**191. Sesamum indicum, Linn. (Till), Herb**

The seeds and gur are taken orally early in the morning for the treatment of intestinal worms.

# The seeds are grinded and mixed with sugar are used during winter for general debility.

#Decoction of leaves is provided orally every day for one year to control the diabetics.

**Loc.** Charkhari, Mahoba (U.P.) 1026.

**Ethn.dist.** Nepal Border (Vishva Vihari, 1995), Rajasthan (Das, 1997).

## ACANTHACEAE

**192. Adhatoda vasica, Nees. (Adusa), Shrub**

The expressed juice of the leaves along with equal amount of honey is provided orally for the treatment of vomiting of blood.

The powdered leaves are used for the treatment of cough.

The ash of leaves and flower is taken orally for the treatment of tuberculosis.

The leaves are pounded into paste and applied externally for the treatment of the joint pain.

The paste of whole plant is also said to be useful for the treatment of insect bite.

**Loc.** Chitrakoot, Karwi (U.P.) 86.

**Ethn.dist.** Calcutta (Chakravarty, 1975 ), Tamilnadu (Banerjee and Banerjee, 1986 ), Himachal Pradesh (Kapur, 1986), Vyasi

Valley (Dhyani and Sharma, 1987), Madhya Pradesh (Jain, 1965; Khare & Khare, 1999).

**193. Andrographis paniculata, Nees. (Bada-Kalmegh), Herb**

The leaves are used as antidote to snake-bite.

Decoction of the roots is used for rheumatism.

**Loc.** Naghara, Hamirpur (U.P.) 1541.

**Ethn.dist.** Calcutta (Chakravarty, 1975), Meghalaya (Neogi *et. al.*, 1989), Orissa (Ghoshal, 1991), Bihar (Gupta, 1981; Sahoo and Mudgal, 1993), Bihar (Girach & Aminuddin, 1995), Uttar Pradesh (Saini 1996), Madhya Pradesh (Jain, 1963, 1965; Jain and Sahu, 1993; Anand Kumar, 1996; Maheshwari 1996, Vivek Kumar & S.K.Jain, 1998).

**194. Asteracantha longifolia, Nees. (Talmakhana), Herb**

Seeds are given with milk and sugar in spermatorrhoea.

Leaves and seeds are useful for the urinary disorder.

Decoction of the seeds is used to cure diabetes.

Decoction of the plant is taken orally for the treatment of malaria.

**Loc.** Mudhari, Mahoba (U.P.) 248.

**Ethn.dist.** Tamilnadu (Banerjee and Banerjee, 1986), Madhya Pradesh (Khare & Khare, 1999).

**195. Barleria cristata, L. (Jhinti), Herb**

#The decoction of the root is used for the treatment of joint pain.

The seed oil is also said to be useful for the treatment of earache.

#The decoction of the root is used for the treatment of pneumonia.

The leaves are boiled with oil. It is applied externally for the treatment of small boils.

**Loc.** Kalinjar, Banda (U.P.) 03.

**Ethn.dist.** Bihar (Sahoo and Mudgal, 1993).

**196. Barleria prionitis, Linn. (Pia bansa), Shrub**

The infusion of leaves is used for the treatment of stomachache.

The expressed juice of leaves is used for the treatment of cough and asthma.

The leaves are powdered and taken orally with water for the treatment of fever.

**Loc.** Sirsi, Hamirpur (U.P.) 273.

**Ethn.dist.** Assam and Arunachal Pradesh (Baruah and Sarma, 1987), Uttar Pradesh (Khann *et. al.*, 1996), Rajasthan (Das, 1997).

**197. Elytararia acaulis, (L.F.) Lindau. (Sahastra musali), Herb**

The plant is powdered and used with honey for the treatment of cough.

The root is pounded into paste and used externally for the treatment of boils.

The roots are used as poultice to the sores of cattle.

The leaves are pounded and the paste is applied on wounds and nail diseases.

**Loc.** Kharella, Hamirpur (U.P.) 591.

**Ethn.dist.** Bundelkhand (Saxena & Vyas, 1981), Madhya Pradesh (Panuli & Maheshwari, 1996).

**198. Lepidagathis trinervis, Nees. (Brahma dandi), Herb**

The juice of the fresh plant is used for the treatment of cuts and

wounds. It stops bleeding.

Extract of the root is provided for oral administration in bleeding piles.

Decoction of the plant is said to be useful for the treatment of intermittent fever.

**Loc.** Barua-Sagar, Jhansi (U.P.) 847.

**Ethn.dist.** Maharashtra (Sharma & Lakshminarasimhan, 1986).

**199. Peristrophe bicalyculata, Nees. (Kakjhangha), Herb**

The plant is pounded and the paste is kept in rice water for some time and filtered, the filtrate is said to be useful for the treatment of snake bite.

The plant is used as fodder to improve the lactation in the cattles.

**Loc.** Kalinjar, Banda (U.P.) 919.

**Ethn.dist.** India (Mitre, 1981), Vyasi Valley (Dhyani and Sharma, 1987), Uttar Pradesh (Khanna *et. al.*, 1996).

## VERBENACEAE

**200. Lantana camara, Linn. (Ghaneri), Shrub**

The leaves are pounded and made into paste. It is applied on ringworms and itch.

Juice of leaves is used in cuts and wounds.

Decoction of the leaves is used for the itching during measles.

**Loc.** Kurara, Hamirpur (U.P.) 248.

**Ethn.dist.** Nilgiris (Abraham, 1981), West Bengal (Pal and Jain, 1989), Meghalaya (Neogi *et. al.*, 1989), Uttar Pradesh (Siddiqui *et. al.*, 1989), Bihar (Sahoo & Mudgal, 1993), Bihar (Girach &

Aminuddin, 1995) Madhya Pradesh (Khare & Khare, 1999; Samvatsar & Diwanji, 1999).

201. \* Lippia nodiflora, Rich. (Jal-pipal), Herb

Extract of the leaves is used during dysentery and diarrhoea.

**Loc.** Dakor, Jalaun (U.P.) 1546.

**Ethn.dist.** Bundelkhand.

202. Tectona grandis, Lin. (Sagaun), Tree

The oil extracted from the fruits is used in eczema and other skin diseases.

The wood is used for making furniture and also as timber.

**Loc.** Ajaigarh, Panna (M.P.) 1547.

**Ethn.dist.** Maharashtra ( Sharma and Lakshminarasimhan, 1986 ), Uttar Pradesh (Siddiqui et. al., 1989), Madhya Pradesh (Jain 1963, 1965; Jain & Sahu, 1993; Jain, 1995).

203. Vitex negundo, Linn. (Negud), Shrub

The leaves are boiled in water. This water is used to take bath for the treatment of rheumatic fever.

The dried leaves are insectisidal, and are used to put with the wheat grains to keep the grains insect free.

# Decoction of the leaves is used on the swellings due to external injuries.

Twings are used for making Baskets.

**Loc.** Chitrakoot, Karwi (U.P.) 1112.

**Ethn.dist.** Bihar (Tarafter and Chaudhuri, 1981), Dhasan Valley ( Saxena & Vyas, 1983 ), Maharashtra ( Shah et. al., 1983 ), Bihar (Tarafter, 1983 ), Uttar Pradesh ( Singh and Maheshwari, 1985), Himachal Pradesh (Kapur, 1986), Vyasi Valley (Dhyani



and Sharma, 1987), Bihar (Sahoo and Mudgal, 1993), Bihar (Girach & Aminuddin, 1995), Rajasthan (Singh and Pandey, 1996), Uttar Pradesh ( Khanna et. al., 1996; Saini, 1996 ), Rajasthan (Das, 1997), Madhya Pradesh ( Sikarwar, 1994; Jain, 1995; Painuli and Maheshwari, 1996; Maheshwari, 1996; Singh et. al., 1999 ; Samvatsar & Diwanji, 1999 ; Saxena and Patnaik, 2000), Nepal (Siwakoti & Siwakoti, 2000).

### LABIATAE

**204. Hyptis suaveolens, Poit. (Vilayati tulsi), Herb**

# Extract of the leaves is used in colic.

Blue dye is obtained from roots.

**Loc.** Jhinna, Hamirpur (U.P.) 1549.

**Ethn.dist.** Uttar Pradesh ( Saini, 1996 ), Nepal (Siwakoti & Siwakoti, 2000).

**205. Leucas aspera, Spreng. (Guma), Herb**

The root is grinded and applied externally for the treatment of scorpionsting.

The leaf juice is used externally for the treatment of skin diseases.

The decoction of crushed leaves is given through nostrils to cure snake-bite.

**Loc.** Lama, Banda (U.P.) 842.

**Ethn.dist.** Orissa ( Saxena et. al., 1981 ), Nilgiris ( Abraham, 1981 ), Himachal Pradesh ( Kapur, 1986 ), Orissa ( Ghoshal, 1991 ), Uttar Pradesh ( Singh et. al., 1994; Saini, 1996 ), Rajasthan (Das, 1997), Madhya Pradesh (Jain, 1963, 1965; Jain and Sahu, 1993; Khare & Khare, 1999),.



**206. Leucas cephalotes, Spreng. (Gumbhi-myala), Herb**

The leaf juice is dropped in eye and nose for the treatment of snakebite.

Extract of the plant is used to cure malarial fever.

Ash of the leaves mixed with urine of horse is applied on head of boils.

**Loc.** Kalinjar, Banda (U.P.) 846.

**Ethn.dist.** Bihar (Gupta, 1981), Uttar Pradesh (Singh and Maheshwari, 1983), Tamilnadu ( Banerjee and Banerjee, 1986 ), Bihar (Sahoo and Mudgal, 1993), Uttar Pradesh (Singh *et. al.*, 1996; Saini, 1996), Rajasthan (Das, 1997).

**207. Mentha arvensis, Linn. (Podina), Herb**

The expressed juice of leaves mixed with honey is used for the treatment of hiccough.

The leaves are boiled in water and the vapours are used for the treatment of cold.

The fresh leaves are pounded with lemon juice and made into paste, it is applied on the face for the treatment of pimples.

The expressed juice of leaves is said to be useful for the treatment of asthma.

**Loc.** Bharwa Sumerpur, Hamirpur (U.P.) 910.

**Ethn.dist.** Tamilnadu ( Banerjee and Banerjee, 1986 ), Himachal Pradesh ( Kapur, 1986 ), Vyas Valley ( Dhyani & Sharma, 1987), Bihar (Sahoo and Mudgal, 1993).

**208. Ocimum americanum, Linn. (Ban Tulsi), Herb**

The leaves are used as poultice on boils.

**209. Ocimum basilicum, Linn. (Babui tulsi), Herb**

The expressed juice of leaf is taken through the nose for the treatment of toothache.

The seeds are pounded and applied externally for the treatment of boils.

The leaves are pounded into paste and applied externally for the treatment of scorpionsting.

**Loc.** Banda (U.P.) 899.

**Ethn.dist.** Dhasan Valley (Saxena and Vyas, 1983), Vyasi Valley (Dhyani and Sharma, 1987), India (Khanna & Mudgal, 1992), Bihar (Sahoo & Mudgal, 1993), Madhya Pradesh (Jain & Sahu, 1993), Uttar Pradesh (Khanna *et. al.*, 1996; Saini, 1996), Rajasthan (Das, 1997).

**210. Ocimum gratissimum, L. (Rama tulsi), Herb**

The decoction of the leaves is used during general debility.

The root is tied on the wrist, it is said to be useful for the treatment of jaundice.

**Loc.** Kalinjar, Banda (U.P.) 903.

**Ethn.dist.** India (Khanna and Mudgal, 1992), Bihar (Sahoo and Mudgal, 1993), Uttar Pradesh (Saini, 1996), Madhya Pradesh (Samvatsar & Diwanji, 1999).

**211. Ocimum sanctum, Linn. (Tulsi), Herb**

The expressed juice of leaves with equal amount of honey is used for the treatment of fever.

5 leaves and 5 black peeper are pounded and given orally, to reduce the narcotic effect of cannabis sativa.

The roots are grinded and applied externally on the affected part due to insectbite.

Leaves are offered to god.

**Loc.** Bharwa Sumerpur, Hamirpur (U.P.) 896.

**Ethn.dist.** Assam ( Hajra and Baishya, 1981 ), Bihar (Tarafer. 1983),  
Tamilnadu ( Banerjee and Banerjee. 1986 ), Vyasi Valley  
(Dhyani and Sharma, 1987), Meghalaya (Neogi *et. al.*, 1989),  
Uttar Pradesh ( Siddiqui *et. al.*, 1989 ), Andaman Islands  
(Awasthi, 1991 ), Uttar Pradesh (Singh *et. al.*, 1994; Saini,  
1996), Madhya Pradesh ( Saxena & Patnaik, 2000), Nepal  
(Siwakoti & Siwakoti, 2000).

**212. Orthosiphon pallidus, Royle. (Kali Nagadi), Herb**

# The seeds are used in leucoderma.

**Loc.** Kalinjar, Banda (U.P.) 907.

**Ethn.dist.** Uttar Pradesh (Khanna *et. al.*, 1996).

**NYCTAGINACEAE**

**213.\* Boerhaavia chinensis, Linn. (Biskhapra), Herb**

The root is grinded and applied externally for the treatment of  
skin diseases.

**Loc.** Kundaura, Hamirpur (U.P.) 278.

**Ethn.dist.** Bundelkhand.

**214. Boerhaavia diffusa, L. (Patherchata), Herb**

The decoction of the plant is said to be useful for the treatment  
of snakebite.

The leaves are used as vegetable for the patient suffering from  
liver diseases.

The leaves are pounded into paste and the paste is applied  
externally on the affected part of the snakebite.

The powdered root alongwith water is provided orally for the treatment of cholera.

The root is pounded into paste and applied externally for the treatment of tumor.

**Loc.** Gaurahari, Hamirpur (U.P.) 280.

**Ethn.dist.** Calcutta ( Chakravarty, 1975 ), West Bengal (Das et al., 1983), Gujrat (Opal & Shah,1985),Tamilnadu (Banerjee and Banerjee, 1986 ), Maharashtra ( Sharma and Lakshminarasimhan, 1986), Vyasi Valley (Dhyani and Sharma, 1987), India ( Khanna and Mudgal, 1992 ), Uttar Pradesh (Saini, 1996 ; Khanna et al., 1996; Singh et al., 1996),Madhya Pradesh (Samwatsar & Diwanji, 1996), Rajasthan (Das, 1997)

#### AMARANTHACEAE

##### 215. Achyranthes aspera, Linn. (Latjeera), Herb.

Whole plant is made into paste and applied locally after setting right the fractured bone and tied with a cotton bandage. Fresh paste is prepared applied externally everyday.

The juice of leaves is used for treatment of earache.

The juice of leaves taken orally is useful for the treatment of piles.

The expressed juice of leaves is dropped in the ear for the treatment of toothache.

The leaves are pounded and made into paste the paste is provided orally for the treatment of hydraphobia.

Fresh paste of leaves are applied on abscess.

Dried leaves are burnt to produce smoke. It is inhaled by the patient suffering from bronchial asthma.

The seeds are half fried mixed with equal amount of sugar, it is taken orally for the treatment of asthma.

The root is kept in hand to relive pain due to scorpionsting.

The ash of root is used orally for the treatment of asthma.

The root is grinded into paste and applied externally for the treatment of scorpion sting.

The roots are powdered and taken orally for the treatment of intermitent fever.

The fresh root is pounded and applied externally on scorpion sting.

The roots are used as an antidote to snake bite.

The fresh root is tied around the thumb of right leg for easy delivery.

The stem is used as tooth brush for the treatment of pyorrhoea.

The ash of Inflorescence and seeds are used for the treatment of snake bite.

+The root and leaves are tied on the wrist of the patient on sunday or wednesday for the treatment of jaundice and intermitant fever.

**Loc.** Bharuwa Sumerpur, Hamirpur (U.P.) 69.

**Ethn.dist.** India (Mitre, 1981), Dhasan Valley (Saxena and Vyas, 1983), Orissa (Singh, 1986), Tamilnadu (Banerjee & Banerjee, 1986), Vyasi Valley ( Dhyani & Sharma, 1987 ). West Bengal ( Pal and Jain, 1989 ) Meghalaya ( Neogi *et. al.*, 1989 ). Orissa ( Ghosal, 1991 ), Assam ( Borthakur, 1993 ), Karnataka ( Hosagoudar & Henry, 1993 ), Andhra Pradesh ( Raju, 1995), Nepal Border (Vishva Vihari, 1995), Bihar (Tarafer, 1983; Sahoo and Mudgal, 1993; Girach & Aminuddin, 1995). Rajasthan ( Singh & Pandey, 1996 ), Uttar Pradesh ( Singh

and Maheshwari, 1983 ; Singh et. al., 1994 : Khanna et. al., 1994; Khanna et. al., 1996 ; Singh et. al., 1996; Saini, 1996), Madhya Pradesh (Jain, 1963, 1965; Sikarwar, 1993, 1994; Samvatsar & Diwanji, 1996 ), Nepal ( Siwakoti & Siwakoti, 2000).

216. \* Amaranthus gracilis, Desf. (Chaulai), Herb

Boiled juice of the leaves taken orally is said to be useful for the treatment of anemia.

The leaves are taken orally for the treatment of skin diseases.

**Loc.** Charkhari, Mahoba (U.P.) 1599.

**Ethn.dist.** Bundelkhand.

217. Amaranthus spinosus, Linn. (Jangli Chori), Herb

The root is pounded and its juice is mixed with butter applied locally on Dogbite.

The fresh leaves are pounded and used as poultice on boils.

The root ash mixed with brassica oil applied externally for the treatment of eczema.

The plant is cut into small pieces and provided orally to the cattle suffering from paralysis.

The leaves are cooked as vegetables.

The plants are used as fodder.

**Loc.** Chandpurwa, Hamirpur (U.P.) 204.

**Ethn.dist.** Nilgiris (Abraham, 1981), West Bengal ( Das et. al., 1983 ), Vyasi Valley ( Dhyani and Sharma, 1987 ), West Bengal (Pal and Jain, 1989 ), Madhya Pradesh ( Sikarwar, 1998 ). Uttar Pradesh (Bajpayee and Dixit, 1996; Saini, 1996), Nepal (Siwakoti & Siwakot,2000).

218. Amaranthus viridis, Linn. (Chorai), Herb

The roots are pounded and made into paste. It is applied on eczema.

The juice of the leaves is used in ringworm disease.

**Loc.** Nandehra, Hamirpur (U.P.) 1553.

**Ethn.dist.** West Bengal (Das et. al., 1983), Madhya Pradesh ( Shukla et. al., 1991; Sikarwar, 1994), Uttar Pradesh ( Siddiqui et. al., 1989; Khanna et. al., 1996, Saini, 1996 ), Rajasthan (Das, 1997).

### CHENOPODIACEAE

219.\* Beta vulgaris, Linn. (Chukandar), Herb

The expressed juice of the leaves alongwith the equal amount of lemon juice is applied on the ringworm.

The fresh juice of the root is said to be useful for the treatment of blood pressure.

**Loc.** Banda (U.P.) 185.

**Ethn.dist.** Bundelkhand.

220. Chenopodium album, Linn. (Bathua), Herb

The expressed juice of leaf is used orally for the treatment of cold.

The plant is used as vegetable.

Leafy twigs of the plant are cooked as vegetable and also used as fodder for cattle.

**Loc.** Kundaura, Hamipur (U.P.) 375.

**Ethn.dist.** Uttar Pradesh ( Singh & Maheshwari, 1983 ), Vyasi Valley (Dhyani and Sharma, 1987), Meghalaya (Neogi et. al., 1989 ). Tehri ( Badoni, 1990 ), Uttar Pradesh (Bajpayee and Dixit, 1996; Saini, 1996), Rajasthan (Das, 1997).



221. \* Spinacia oleracea, Linn. (Palak), Herb

The seeds are powdered and its applied locally on eczema.

Loc. Banda (U.P.) 185.

Ethn.dist. Bundelkhand.

### POLYGONACEAE

222. Polygonum glabrum, willd. (Nari), Herb

The root is pounded into paste and used externally for the treatment of headache.

An infusion of the leaves is provided orally during colic.

The paste of roots is applied externally on bleeding piles.

Loc. Karwi, Karwi (U.P.) 976.

Ethn.dist. Assam and Arunachal Pradesh (Baruah and Sharma, 1987),  
Uttar Pradesh (Siddiqui et. al., 1989).

### ARISTOLOCHIACEAE

223. Aristolochia bracteata, Retz. (Kira-mar), Shrub

The leaves are pounded and made into paste, it is applied as poultice on the warts of cattle.

Decoction of the roots is used for the treatment of round-worms.

Loc. Talbehat, Lalitpur (U.P.) 1558.

Ethn.dist. Vyasi Valley (Dhyani and Sharma, 1987), Rajasthan  
(Sharma, 1990). Rajasthan (Singh & Pandey, 1996).

### PIPERACEAE

224. Piper betle, Linn. (Pan), Herb

Expressed juice of the leaf is used in cough.



Leaves are offered to God.

**Loc.** Mahoba (U.P.) 1559.

**Ethn.dist.** Calcutta ( Chakravarty, 1975 ), Bihar ( Tarafder, 1983), Andaman and Nicobar Islands ( Awasthi, 1987 ), Car Nicobar Islands (Dagar, 1989), Rajasthan ( Sharma, 1990 ), Nepal Border (Vishva Vihari, 1995).

## EUPHORBIACEAE

### 225. Acalypha indica, (Kuppa), Shrub

# The powdered leaves are used for the treatment of skin diseases.

# The decoction of root is used as laxative.

Decoction of the leaves used orally for relieving the pain of snakebite.

**Loc.** Kalinjar, Banda (U.P.) 1591.

**Ethn.dist.** Madhya Pradesh (Jain and Sahu, 1993).

### 226. Embolica officinalis, Gaertn. (Amla), Tree

The fruits are used as pickles.

The fruits are dried and powdered. The infusion of the powdered fruit is used for the treatment of dendruf.

The powdered fruits are taken with the powdered leaves of the Lawsonia innermis in equal amounts, it is dipped in water for some time and applied externally for blackening of hairs.

The fruit juice mixed with honey is used for the treatment of inflammation during urination.

The dry fruits are powdered along with the seeds of Eugenia jambolana. The powder is used for the treatment of diabeties.

The plant is worshiped on the day of "Ichchha Navami" (a festival).

**Loc.** Kahra, Hamirpur (U.P.) 592.

**Ethn.dist.** Maharashtra and Goa (Vartak, 1981), Andaman and Nicobar Island (Bhargava, 1981), Eastern India (Pal, 1981), Assam (Borthakur, 1981), Maharashtra (Sharma and Lakshminarasimhan, 1986), Vyasi Valley (Dhyani and Sharma, 1987), Bihar (Sahoo and Mudgal, 1993), Nepal Border (Vishva Vihari, 1995), Uttar Pradesh (Khanna *et. al.* 1994, 1996), Rajasthan (Singh, 1983; Das, 1997), Madhya Pradesh (Shukla *et. al.*, 1991; Jain and Sahu, 1994; Singh *et. al.*, 1999; Saxena and Patnaik, 2000), Nepal (Siwakoti & Siwakoti, 2000).

**227. Euphorbia antiquorum, Linn. (Thuhar), Shrub**

Decoction of the plant is used in asthma.

The stem are pounded and made into a paste, it is applied as poultice on the inflammation of the nail.

**Loc.** Naghara, Hamirpur (U.P.) 1561.

**Ethn.dist.** Andaman & Nicobar Island (Bhargava, 1981), West Bengal (Das *et. al.*, 1983).

**228. Euphorbia hirta, Linn. (Badi Dudhi), Herb**

The expressed juice of the plant is useful for the treatment of dysentery and intestinal worms.

The decoction of the plant is used for the treatment of asthma.

Juice of the plant is used to promote lactation in women.

Expressed juice of the leaves is provided for oral administration to check vomiting.

Expressed juice of the plant is used for the treatment of dysentery in children.

**Loc.** Bharuwa Sumerpur, Hamirpur (U.P.) 599.

**Ethn.dist.** Dhasan Valley (Saxena and Vyas, 1983), West Bengal ( Das et. al., 1983 ). Maharashtra (Shah et. al., 1983), Himachal Pradesh ( Kapur, 1986), Tamilnadu ( Banerjee and Banerjee, 1986), Vyasi Valley (Dhyani & Sharma, 1987 ), Bihar ( Sahoo and Mudgal, 1993 ), Madhya Pradesh (Jain, 1965; Shukla et. al., 1991; Jain & Sahu, 1993), Andra Pradesh (Raju, 1995 ). Bihar (Girach & Aminuddin 1995 ), Rajasthan ( Das, 1997). Nepal (Siwakoti & Siwakoti, 2000).

**229. Euphorbia hypercifolia, Linn. (Chooti Dudhi), Herb**

The leaves of the plant are grinded with black peeper and used for the treatment of snake bite.

Whole plant is dried and powdered, the powder is used with milk during general debility.

The expressed juice of the plant is used orally for the treatment of diarrhoea in the children.

+ Plants are used as totam.

**Loc.** Atarra, Banda (U.P.) 601.

**Ethn.dist.** Uttar Pradesh (Saini, 1996).

**230. Euphorbia thymifolia, Linn. (Chhoti Dudhi), Herb**

The plant is grinded with black peeper, it is used for the treatment of snake bite.

The plant is boiled with brassica oil and filtered. it is applied externally for the treatment of joint pain.

The powdered plant is used for the treatment of stomach disorder.

The plant is dried under shade and powdered, it is used for the treatment of general debility.

The plant extract is used for the treatment of piles.

**Loc.** Kalinjar, Banda (U.P.) 600.

**Ethn.dist.** Orissa ( Aminuddin *et. al.*, 1993 ), Madhya Pradesh (Jain & Sahu, 1993), Uttar Pradesh (Khanna *et. al.*, 1996), Rajasthan (Das, 1997).

**231. Jatropha gossypifolia, Linn. (Dudhi), Herb**

The fresh leaves are pounded into paste and applied externally on the wounds.

The leaves are used for the treatment of boils.

The leaves are used in eczema and itch.

The root is put around the neck of the cattle for healing of wounds.

+ The root is used for totem.

**Loc.** Devgaon, Hamirpur (U.P.) 815.

**Ethn.dist.** Madhya Pradesh (Jain, 1963 ; 1965 ), Eastern India ( Pal, 1981), Uttar Pradesh (Saini, 1996).

**232. Mallotus philippinensis, Muell. Arg. (Kamala), Shrub**

The leaves are pounded into paste and used for treatment of skin diseases.

The decoction of the leaves is use for the treatment of constipation.

An orange-red dye is obtained from the ripe fruits.

**Loc.** Kalinjar, Banda (U.P.) 1202.

**Ethn.dist.** Himachal Pradesh (Kapur, 1986), Maharashtra (Sharma and Lakshminarasimhan, 1986), Nepal Border ( Vishva Vihari, 1995), Rajasthan (Das, 1997), Uttar Pradesh ( Singh *et. al.*, 1998), Madhya Pradesh (Jain, 1981; Vivek Kumar and Jain, 1998; Singh *et. al.*, 1999), Nepal ( Siwakoti & Siwakoti, 2000).

233. Phyllanthus niruri, Linn. (Bhui Amla), Herb.

The plant is pounded into paste and applied externally for the treatment of piles.

The decoction of the leaves is used for the treatment of fever and snakebite.

Expressed juice of the plant is used for the treatment of jaundice.

**Loc.** Bansi, Lalitpur (U.P.) 1218.

**Ethn.dist.** Bihar ( Tarafder, 1983 ), Tamilnadu ( Banerjee and Banerjee, 1986).

234.\* Phyllanthus simplex, Retz. (Jangali Imli), Herb

The plant is pounded in to paste and applied externally for the treatment of sciatica.

The fruits are made in to a paste with the hot water, the paste is applied on bleeding piles.

**Loc.** Umari, Jalaun (U.P.) 946.

**Ethn.dist.** Bundelkhand.

235. Ricinus communis, Linn. (Andi), Shrub

The seeds are pounded and made into past. The warm past is used to relieve pain due to thrombophlobitis.

The oil is applied on the leaf, the leaf is warmed and used externally for the treatment of boil.

The young leaves are pounded into paste and applied externally for the treatment of snakebite.

The root is grinded and applied externally on tample for the treatment of headache.

The decoction of the root is used for the treatment of rheumatism.

The leaf juice is used for oral administration for the treatment of snakebite.

The decoction of the root is taken orally for the treatment of sciatica.

Stems are used for thaching purpose.

**Loc.** Kundaure, Hamirpur (U.P.) 995.

**Ethn.dist.** Nilgiris (Abraham, 1981), Tamilnadu (Banerjee and Banerjee, 1986), Himachal Pradesh (Kapur, 1986), Andaman and Nicobar Islands (Awasthi, 1987), West Bengal (Pal & Jain, 1989), Assam (Borthakur, 1993), Nepal Border (Vishva Vihari, 1995), Rajasthan (Sharma, 1990; Das, 1997), Uttar Pradesh (Singh and Maheshwari, 1985; Khanna *et. al.*, 1996; Saini, 1996; Singh *et. al.*, 1998), Madhya Pradesh (Jain, 1965, 1981; Sikarwar, 1993; Khare & Khare, 1999), Nepal (Siwakoti & Siwakoti, 2000).

## MORACEAE

### 236. Ficus benghalensis, Linn. (Bargad), Tree

The latex of the plant is dropped into the ear for treatment of earache.

Young leaves are pounded and made into paste, mixed with butter and applied on burnt body part.

The latex is also useful for the treatment of boils.

The latex is used with sugar for the treatment of dysentery.

This is a sacred plant worshiped on the festival 'Akshaya Tritiya' by women.

**Loc.** Bamhauri-Khurd, Hamirpur (U.P.) 612.

**Ethn.dist.** Tamilnadu (Banerjee and Banerjee, 1986), Eastern India (Pal, 1981), Vyasi Valley (Dhyani and Sharma, 1987), India (Khanna and Mudgal, 1992), Bihar (Sahoo & Mudgal, 1993).

Nepal Border ( Vishva Vihari, 1995 ), Rajasthan ( Singh & Pandey, 1996), Uttar Pradesh ( Singh and Maheshwari, 1983; Saini, 1996 ), Rajasthan ( Das, 1997), Madhya Pradesh ( Singh et. al., 1999; Samvatsar & Diwan ji, 1999; Saxena & Patnaik, 2000), Nepal (Siwakoti & Siwakoti, 2000).

**237. Ficus racemosa, Wau. Cat. (Gular), Tree.**

The few drops of latex with sugar is provided orally for 8 to 10 days for the treatment of diarrhoea.

The fruit juice with honey is useful for the treatment of urticaria.

The fruit juice is used as drinks.

The leaf buds are pounded into paste and applied externally on the scorpion sting.

The fruits are eaten.

**Loc.** Rivai, Hamirpur (U.P.) 642.

**Ethn. dist.** Andaman & Nicobar Island ( Bhargava, 1981 ), Maharashtra and Goa (Vartak, 1981), Bihar ( Tarafder, 1983 ), Karnataka (Hosagaudar & Henry, 1993 ), Bihar (Sahoo & Mudgal, 1993), Uttar Pradesh (Negi et. al., 1993 ; Singh et. al., 1994 ), Nepal Border ( Vishva Vihari, 1995 ), Uttar Pradesh (Khanna et. al., 1996 ; Bajpayee and Dixit, 1996), Rajasthan ( Singh and Pandey, 1996 ; Das, 1997 ), Madhya Pradesh (Jain and Sahu, 1993 ; Painuli and Maheshwari, 1996 ; Vivek Kumar & S.K.Jain, 1998), Nepal (Siwakoti & Siwakoti, 2000).

**238. Ficus religiosa, Linn. (Peepal), Tree**

The stem bark is burnt and put in water. It is filtered and taken orally for the treatment of vomiting.

The aerial roots are pounded and recommended for oral administration with cows milk for the treatment of leucorrhoea.



The young leaves are pounded and applied on piles.

The powdered fruits with milk are said to be useful for heart complaints.

Young fruits are dried and powdered, about one gram power is taken orally for the treatment of headache.

+ The petiole of the leaves is gradually put in the ear is used as totem and also for the treatment of snake bite.

Plant is worshipped to Lord Shiva.

**Loc.** Dureddi, Banda (U.P.) 629.

**Ethn.dist.** India (Mitre, 1981), Bihar (Tarafder, 1983), Tamilnadu (Banerjee & Banerjee, 1986), Vyassi Valley (Dhyani & Sharma, 1987), Uttar Pradesh (Siddiqui *et. al.*, 1989), Madhya Pradesh (Jain & Sahu, 1993), Uttar Pradesh (Singh *et. al.*, 1994; Khanna *et. al.*, 1996; Singh *et. al.*, 1996) Rajasthan (Das, 1997), Madhya Pradesh (Singh *et. al.*, 1999; Saxena and Patnaik, 2000).

**239. Ficus rumphii, Blume. (Pakar), Tree.**

The aerial roots of the plant are taken orally for the treatment of leucorrhoea.

**Loc.** Bharuwa Sumerpur, Hamirpur (U.P.) 623.

**Ethn.dist.** India (Khanna and Mudgal, 1992).

**240. Holoptelia integrifolia, Planch. (Chilla), Tree.**

The wood is used for making furniture and Agricultural implements.

The paste of bark is used in the treatment of rheumatism.

+ The bark is used for totem.

**Loc.** Banda (U.P.) 1563.

**Ethn.dist.** Orissa (Saxena *et. al.*, 1981), Vyasi Valley (Dhyani &



Sharma, 1987), West Bengal ( Pal and Jain, 1989 ), Andhra Pradesh ( Raju. 1995 ), Bihar ( Girach & Aminuddin, 1995 ), Uttar Pradesh (Singh and Maheshwari, 1983; Siddiqui *et. al.*, 1989; Khanna *et. al.*, 1996, Singh *et. al.*, 1996, Saini, 1996), Rajasthan ( Das, 1997), Madhya Pradesh ( Vivek Kumar & S.K.Jain, 1998; Samvatsar & Diwanji, 1999).

### ZINGIBERACEAE

#### 241. Curcuma domestica, Salisb. (Haldi), Herb.

Dried rhizome is powdered along with equal amount of Brassica seeds and rock salt, it is also mixed with equal amount of 'Gur', small tablets of gram size are made. Two to three tablets are taken orally bi a day with warm water for the treatment of asthma.

The powdered rhizomes are used on various ceremonial occasions and worship.

Powdered rhizome is also used for colouring purpose.

**Loc.** Barua Sagar, Jhansi (U.P.) 451.

**Ethn.dist.** India ( Chaudhuri and Pal, 1981 ), Vyasi Valley, ( Dhyani & Sharma, 1987), Nepal Border ( Vishva Vihari, 1995 ), Nepal (Siwakoti & Siwakoti, 2000).

#### 242. Zingiber officinale, Rose. (Adrak), Herb.

The dried rhizome is called as 'Sunth'. It is powdered, the powder is used with warm water for the treatment of sciatica.

The powdered sunth is boiled with milk and cooled. It is taken orally for five days for the treatment of backache.

The expressed juice of rhizome with honey is useful for the treatment of cold and cough.

Fresh rhizome of the plant is taken orally for the treatment of hicca it also help in digestion.

**Loc.** Bharuwa Sagar, Jhansi (U.P.) 1127.

**Ethn.dist.** Bihar ( Tarafder, 1983 ), Car Nicobar Island (Awasthi, 1987 ; Dagar, 1989 ), Orissa ( Ghoshal, 1991 ), Assam (Borthakur, 1993). Uttar Pradesh (Singh et al., 1994)

### AMARYLLIDACEAE

#### 243. \* Crinum defixum, Ker-Gawl. (Sudarshan), Herb

The expressed juice of the leaf is used for the treatment of earache.

The rhizome is pounded into paste and mixed with turmeric powder and applied externally for the treatment of wounds.

**Loc.** Chandpurwa, Hamirpur (U.P.), 430.

**Ethn.dist.** Bundelkhand.

#### 244. Curculigo orchiodes, Gaertn. (Kali Singhia), Herb

The fresh root is cut and put on the spot of scorpion sting to get relief.

The powdered root is used for the treatment of dysentery and diarrhoea.

Leaf juice is useful for the treatment of eye disease in animal.

**Loc.** Talbehat, Lalitpur (U.P.) 1565.

**Ethn.dist.** Orissa (Saxena Goa (Vartak, 1981), Dhasan Valley ( Saxena and Vyas, 1983 ), Maharashtra (Mudaliar et al., 1987), Bihar ( Tarafder and Chaudhary, 1981; Tarafder, 1983; Sahoo and Mudgal, 1993 ), Andhra Pradesh ( Raju, 1995 ), Rajasthan (Singh & Pandey, 1996), Madhya Pradesh ( Jain, 1965, Roy and Chaturvedi, 1987 ; Shukla et al., 1991 ; Painuli &

Maheshwari, 1996), Nepal ( Siwakoti & Siwakoti, 2000).

## LILIACEAE

### 245. Allium cepa, Linn. (Piyaz), Herb

The bulb is kept in pocket, for the prevention of the sun stroke.

The juice of the bulb is mixed with equal amount of honey for the treatment of impotence.

The juice of bulb is useful for vomiting.

The poultice of the bulb is used as external application for the treatment of piles.

The juice is useful for the treatment of ear complaints.

The bulbs are used as vegetables.

**Loc.** Chandpurwa, Hamirpur (U.P.) 192.

**Ethn.dist.** Calcutta (Chakravarty, 1975), Nilgiris (Abraham, 1981), Vyasi Valley ( Dhyani and Sharma, 1987 ), Rajasthan ( Singh and Pandey, 1996 ), Uttar Pradesh (Singh and Maheshwari, 1983; Siddiqui *et. al.*, 1989; Khanna *et. al.*, 1996; Saini, 1996).

### 246. Allium sativum, Linn. (Lahsun), Herb

The cloves are grinded and made into paste. It is applied externally for the treatment rheumatic pain.

Two to eight cloves are pounded and boiled with one glass of milk. When it is reduce to half it is cooled and filtered, it is taken orally for the treatment of scitica.

The warm juice is used for the treatment of earache.

**Loc.** Sumerpur, Hamirpur (U.P.) 195.

**Ethn.dist.** Calcutta (Chakravarty, 1975), Nilgiris (Abraham, 1981), Dhasan Valley (Saxena and Vyas, 1983), Vyasi Valley ( Dhyani and Sharma, 1987 ), Uttar Pradesh (Saini, 1996), Rajasthan (Singh

and Pandey, 1996; Das, 1997).

**247. Aloe barbadensis, Mill. (Ghikwar), Herb**

The leaf pulp mixed with turmeric powder, it is used for the treatment of wounds.

**Loc.** Supa, Mahoba (U.P.) 180.

**Ethn.dist.** Maharashtra (Sharma and Lakshminarasimhan, 1986), Bihar ( Girach & Aminuddin, 1995 ), Madhya Pradesh ( Khare & Khare, 1999), Nepal (Siwakoti & Siwakoti, 2000)

**248. Asparagus racemosus, Willd. (Shatavar), Climber**

The powdered roots taken with milk, it is used during general debility.

The decoction of the tuber is used to expell out the intestinal worms in children.

Boiled tuberous roots are eaten to increase lactation in women.

**Loc.** Kulpahar, Mahoba (U.P.) 42.

**Ethn.dist.** Maharashtra and Goa ( Vartak, 1981 ), Assam ( Hajra and Baishya, 1981; Borthakur, 1993), Madhya Pradesh (Sikarwar, 1993), Uttar Pradesh (Singh et. al., 1994) Nepal Border (Vishva Vihari, 1995), Bihar ( Sahoo and Mudgal, 1993; Girach and Aminuddin, 1995 ), Uttar Pradesh ( Singh and Maheshwari, 1983; Siddiqui et. al., 1989; Negi et. al., 1993; Singh, et. al., 1994 ; Bajpayee and Dixit, 1996 ), Rajasthan ( Das, 1997 ). Madhya Pradesh ( Jain, 1965 ; Roy and Chaturvedi, 1987; Shukla et. al., 1991 ; Sikarwar, 1993 ; Samvatsar & Diwan Ji, 1999 ; Saxena & Patnaik, 2000) Nepal (Siwakoti & Siwakoti, 2000).

**249. Chlorophytum tuberosum, Baber. (Safed Musali), Herb**

The leaves are used as vegetables. Powdered tubers are taken orally during leucorrhoea and fever.

**Loc.** Syondhi, Hamirpur (U.P.)

**Ethn.dist.** Maharashtra and Goa (Vartak, 1981), Dhasan Valley (Saxena & Vyas, 1983), Maharashtra (Mudaliar et. al., 1987), Madhya Pradesh (Roy and Chaturvedi, 1987).

**250. Gloriosa superba, Linn. (Kalihari), Herb**

The root is pounded with water and enhaled, it is said to be useful for the treatment of snake bite.

Plants are useful for tongue disease and joint pain of animals.

+ The root is tied on the wrist and the leg of the women for easy delivery.

**Loc.** Chitakoot, Karwi (U.P.) 752.

**Ethn.dist.** Orissa (Saxena et. al., 1981), Bihar (Tarafer, 1983), Uttar Pradesh (Singh & Maheshwari, 1985), Himachal Pradesh (Kapur, 1986), Tamilnadu (Banerjee and Banerjee, 1986), Assam & Arunachal Pradesh (Baruah and Sharma, 1987), Andhra Pradesh (Raju, 1995), Rajasthan (Singh & Pandey, 1996), Madhya Pradesh (Jain and Sahu, 1993; Samwatsar & Diwanji, 1996; Samvatsar & Diwanji, 1999).

**251. Urginea indica, Kunth. (Jungli piyaz), Herb**

About half bulb alongwith 11 black peeper and some amount of cow's butter is provided orally for the treatment of snake bite.

**Loc.** Kurara, Hamirpur (U.P.) 1084.

**Ethn.dist.** Uttar Pradesh (Singh et. al., 1996), Rajasthan (Das, 1997)

COMMELINACEAE252. Commelina benghalensis, L. (Kanchara), Herb

The leaves are used as vegetable.

The leaves are pounded into paste and applied externally for the treatment of skin diseases.

The decoction of the plant is used for the treatment of fever.

Loc. Banda (U.P.) 395.

Ethn.dist. Maharashtra and Goas (Vartak, 1981), Dhasan Valley (Saxena and Vyas, 1983), Vyasi Valley (Dhyani and Sharma, 1987), Madhya Pradesh (Sikarwar, 1994), Uttar Pradesh (Bajpayee and Dixit, 1996; Saini, 1996), Rajasthan (Das, 1997)

PALMAE253. Borassus flabellifer, Linn. (Tarr), Tree

The inflorescence is grinded into paste and applied on scorpion sting.

The leaves are used for making fans, Mat's and toys.

Fruits are eaten.

Loc. Charkhari, Mahoba (U.P.) 1575.

Ethn.dist. Dhasan Valley (Saxena and Vyas, 1983), Uttar Pradesh (Saini, 1996), Nepal (Siwakoti & Siwakoti, 2000)

254. Phoenix sylvestris, Roxb. (Khajur), Tree

#The root is powdered and used for the treatment of toothache.

#The central part of the young stem and root is edible, it is also cooked with rice during general debility.

Brooms, basket and toys are also prepared with the leaves.

**Loc.** Kahra, Hamirpur (U.P.) 940.

**Ethn.dist.** North eastern India (Arora, 1981), India ( Khanna and Mudgal, 1992), Uttar Pradesh (Singh and Maheshwari, 1985; Bajpayee and Dixit, 1996 ), Madhya Pradesh (Jain, 1995; Maheshwari, 1996), Rajasthan (Das, 1997).

### ARACEAE

**255. Colocasia esculenta, (Linn) Schott. (Ghunya), Herb**

The corm is eaten as vegetable.

#The corm is pounded into paste and applied externally for the treatment of scorpionsting.

**Loc.** Barua Sagar, Jhansi (U.P.)

**Ethn.dist.** Bihar ( Sahoo and Mudgal, 1993 ), Rajasthan, (Das, 1997).

**256. Pistia stratiotes, Linn. (Jal-Kumbhi), Herb**

The leaf juice with coconut oil is applied on skin diseases.

**Loc.** Banda (U.P.) 1580.

**Ethn.dist.** Rajasthan (Singh and Singh, 1983).

### TYPHACEAE

**257. Typha angustata, Chaub. & Bory. (Hathi-ghas), Herb**

Rhizomes and stems are used as vegetables.

#Spike of the plant is used in cuts.

**Loc.** Banda (U.P.)

**Ethn.dist.** Rajasthan ( Singh and Singh, 1983 ), Madhya Pradesh (Samwatsar & Diwanji, 1996).



CYPERACEAE258. Eleocharis dulcis, (Burm. f.) Trinius. (Shuri ghas), Herb

#Washed rhizomes are dried and powdered, it is used for the treatment of stomachache and diarrhoea.

**Loc.** Pirauna, Jalaun (U.P.) 1585.

**Ethn.dist.** Uttar Pradesh ( Bajpayee and Dixit, 1996 ), Rajasthan (Das, 1997).

259.\* Scirpus grossus, Linn. (Kasharu), Herb

The cleaned and boiled underground rhizome are said to be an antidote to insectbite .

The boiled rhizomes are edible.

**Loc.** Niwari, Jhansi (U.P.) 502.

**Ethn.dist.** Bundelkhand.

GRAMINEAE260. Avena sativa, Linn. (Jai), Herb

The young plants are used as fodder.

The powdered seeds are used for the treatment of general debility.

**Loc.** Binaura, Jalaun (U.P.) 1589.

**Ethn.dist.** Vyasi Valley (Dhyani and Sharma, 1987).

261. Cynodon dactylon, Linn. (Dub ghas), Herb

The expressed juice of plant is taken orally for the treatment of histeria.

The fresh juice of plant is used as eye drop for the treatment of conjunctivites.



The plant is pounded alongwith the rizome of saccharum officinarum and mixed with cows milk, it is taken orally for the treatment of leucorrhoea.

The plants is used for the worship of gods.

**Loc.** Mudhari, Mahoba (U.P.) 503.

**Ethn.dist.** India (Mitre. 1981), Assam (Hajra and Baishya, 1981), West Bengal ( Das et al., 1983 ), Vyasi Valley ( Dhyani & Sharma, 1987 ), Bihar ( Tarafder, 1983; Sahoo and Mudgal, 1993 ), Uttar Pradesh ( Singh et. al. , 1996 ; Saini, 1996) Rajasthan (Singh & Pandey, 1996 ; Das, 1997), Madhya Pradesh ( Vivek Kumar & S. K. Jain, 1998 ; Khare & Khare , 1999), Nepal (Siwakoti & Siwakoti, 2000).

**262. Dendrocalamus strictus, Nees. (Bans), Shrub**

Sticks are used for making baskets & huts.

Stem are useful for making musical instruments.

**Loc.** Talbehut, Lalitpur (U.P.) 1590.

**Ethn.dist.** Uttar Pradesh ( Singh & Maheshwari, 1985 ), Maharashtra ( Sharma and Lakshminarasimhan, 1986 ), Rajasthan (Das, 1997), Madhya Pradesh (Shukla et. al., 1991 ; Singh et. al., 1999).

**263. Hordeum vulgare, Linn. (Jawa), Herb**

Powdered seed are used as poultice on boils.

The flour is used as cattle feed.

The germinated seeds are worshiped.

**Loc.** Atarra, Banda (U.P.) 1592.

**Ethn.dist.** Vyasi Valley (Dhyani and Sharma, 1987).

**264. Oryza rufipogon, Griff. (Pasai), Herb**

Plant used as fooder for cattle.

The seeds are cooked and eaten by women during fast on the 'Halshashthi' festival.

**Loc.** Khurhand, Banda (U.P.) 1594.

**Ethn.dist.** Rajasthan (Singh and Singh, 1983), West Bengal (Pal and Jain, 1989).

**265. Oryza sativa, Linn. (Chawal), Herb**

The fruit is grinded with water and the paste is kept in water for some time, the supernatant is taken orally the treatment of vomiting.

The seeds offered to God.

The seeds are cooked and eaten.

**Loc.** Atarra, Banda (U.P.) 870.

**Ethn.dist.** Assam (Hajra and Baishya, 1981), India (Chadhuri and Pal, 1981).

**266. Pennisetum typhoides, Stapf. (Bajra), Herb**

The leaf juice along with honey is used for the treatment of asthma and heart diseases.

**Loc.** Chitrakut, Karwi (U.P.) 937.

**Ethn.dist.** Uttar Pradesh (Khanna *et. al.*, 1996).

**267. Saccharum spontaneum, L. (Kans), Herb**

# The root is pounded into paste along with Cynadon dactylon. the paste is taken orally along with cows milk for the treatment of leucorrhoea.

**Loc.** Maudaha, Hamirpur (U.P.) 1015.

**Ethn.dist.** Madhya Pradesh (Jain, 1995), Rajasthan (Das, 1997), Nepal (Siwakoti & Siwakoti, 2000).

268. \* Sorghum vulgare, Linn. (Pers) (Jowar), Herb

Flour is said to be useful to control diabetics.

Young plant is used as fodder.

Loc. Ghatera, Mahoba (U.P.) 1044.

Ethn.dist. Bundelkhand.

269. \* Triticum vulgare, Vill. (Gehun), Herb

The seeds are soaked in the water for 48 hours, the soaked seeds are dried and powdered with the flower buds of cloves.

The powder is fried in ghee and taken orally during migraine.

Loc. Bharwa Sumerpur, Hamirpur (U.P.) 1596.

Ethn.dist. Bundelkhand.

270. Vetiveria zizanioides, Linn. (Khas), Herb

# The root is grinded and made into paste, it is applied externally for the treatment of scorpion sting.

The roots are used for making mats.

Loc. Devgaon, Hamirpur (U.P.) 1232.

Ethn.dist. India (Khanna and Mudgal, 1992), Uttar Pradesh (Khanna et. al., 1996, Saini, 1996), Rajasthan (Das, 1997) Madhya Pradesh (Vivek Kumar & S.K.Jain, 1998; Samvatsar and Diwan Ji, 1999).

## CRYPTOGAMS

### SELAGINELLAE

271. Selaginella bryopteris, (L) Baker. (Kamraj), Herb

The plant is pounded and taken orally during general debility.

The plant is boiled with brassica oil and filtered, this oil is used

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CHAPTER - VI  
*Discussion*

## Classified check list of Ethnobotanically important plants recorded from Bundelkhand (1998-2001)

S.No.	Classified list of plants	Ethnobotanical informations		Occurrence		
		Nath	Others			
	RANUNCULACEAE					
1.	<u>Ranunculus sceleratus</u> , Linn.	+	-	F	-	-
	DILLENIACEAE					
2.	<u>Dillenia indica</u> , Linn.	+	-	-	R	-
	ANNONACEAE					
3.	<u>Annona squamosa</u> , Linn.	+	+	F	-	-
	MENISPERMACEAE					
4.	<u>Cissampelos pareira</u> , Linn.	+	+	-	R	-
5.	<u>Cocculus hirsutus</u> , (Linn.), Diels	+	-	F	-	-
6.	<u>Tinospora cordifolia</u> , (Willd), Miers.	+	+	F	-	-
	NYMPHAEACEAE					
7.	<u>Nelumbo nucifera</u> , Garden	+	-	F	-	-
8.	<u>Nymphaea stellata</u> , Willd.	+	-	F	-	-
	PAPAVERACEAE					
9.	<u>Argemone maxicana</u> , Linn.	+	+	F	-	-

S.No.	Classified list of plants	Ethnobotanical informations		Occurrence		
		Nath	Others			
	<b>FUMARIACEAE</b>					
10.	<u>Fumaria parviflora</u> , Lamk.	+	-	F	-	-
	<b>CRUCIFERAE</b>					
11.	<u>Brassica campestris</u> , Linn.	+	+	F	-	-
12.	<u>Brassica juncea</u> , H.K.	+	+	F	-	-
13.	<u>Brassica nigra</u> , Koch.	+	+	F	-	-
14.	<u>Raphanus sativus</u> , Linn.	+	+	F	-	-
	<b>CAPPARIDACEAE</b>					
15.	<u>Capparis decidua</u> (Forsk) Edgen.	+	-	F	-	-
16.	<u>Cleome viscosa</u> , Linn.	+	-	F	-	-
17.	<u>Gynandropsis gynandra</u> , Linn.	+	-	F	-	-
18.	<u>Gynandropsis pentaphylla</u> , DC.	+	-	F	-	-
	<b>BIXINEAE</b>					
19.	<u>Flacourtia indica</u> , Merr.	+	-	F	-	-
	<b>POLYGALACEAE</b>					
20.	<u>Polygala chinensis</u> , Linn.	+	-	F	-	-
	<b>PORTULACACEAE</b>					
21.	<u>Portulaca oleracea</u> , Linn.	+	-	F	-	-

S.No.	Classified list of plants	Ethnobotanical informations		Occurrence		
		Nath	Others			
	DIPTEROCARPEAE					
22.	<u>Shorea robusta</u> , Gaerth. f.	+	+	-	R	-
	MALVACEAE					
23.	<u>Abutilon hirtum</u> , G. Don.	+	-	F	-	-
24.	<u>Abutilon indicum</u> , Linn.	+	+	F	-	-
25.	<u>Gossypium herbaceum</u> , Linn.	+	-	F	-	-
26.	<u>Salmania malabaricum</u> , Schott, Meletem	+	-	F	-	-
27.	<u>Sida acuta</u> , Burn.	+	-	F	-	-
28.	<u>Sida cordata</u> , Burn.	+	-	F	-	-
29.	<u>Sida cordifolia</u> , Linn.	+	+	F	-	-
30.	<u>Sida spinosa</u> , Linn.	+	-	F	-	-
31.	<u>Urena lobata</u> , Linn.	+	-	-	R	-
	STERCULIACEAE					
32.	<u>Helicteres isora</u> , Linn.	+	-	-	R	-
	TILIACEAE					
33.	<u>Corchorus antichorus</u> , Reecusch.	+	-	F	-	-
34.	<u>Corchorus fascicularis</u> , Lamk.	+	-	F	-	-
35.	<u>Corchorus trilocularis</u> , Linn.	+	-	F	-	-

S.No.	Classified list of plants	Ethnobotanical informations		Occurrence		
		Nath	Others			
36.	<u>Grewia hirsuta</u> , Vahl Symb.	+	-	F	-	-
37.	<u>Triumfetta rotundifolia</u> , Lam. LINACEAE	+	-	F	-	-
38.	<u>Linum usitatissimum</u> , Linn. ZUGOPHYLLACEAE	+	-	F	-	-
39.	<u>Tribulus terrestris</u> , L. GERANIACEAE	+	-	F	-	-
40.	<u>Biophytum sensitivum</u> , (L) D.C.	+	-	F	-	-
41.	<u>Impatiens balsamina</u> , Linn.	+	-	F	-	-
42.	<u>Oxalis corniculata</u> , Linn.	+	-	F	-	-
43.	<u>Oxalis latifolia</u> , H.B. & K. RUTACEAE	+	-	F	-	-
44.	<u>Aegle marmelos</u> , Correa.	+	+	F	-	-
45.	<u>Citrus aurantifolia</u> , (Christm.) Swingle	+	-	F	-	-
46.	<u>Citrus medica</u> , Linn.	+	-	F	-	-
47.	<u>Feronia elephantum</u> , Correa. SIMARUPACEAE	+	-	F	-	-
48.	<u>Balanites aegyptiaca</u> , (Linn) Delile.	+	-	F	-	-



S.No.	Classified list of plants	Ethnobotanical informations		Occurrence		
		Nath	Others			
	<b>BURSERACEAE</b>					
49.	<u>Boswellia serrata</u> , Roxb. ex Colebr.	+	+	F	-	-
	<b>MELIACEAE</b>					
50.	<u>Azadirachta indica</u> , A. Juss.	+	+	F	-	-
51.	<u>Melia azedarach</u> , Linn.	+	-	F	-	-
	<b>CELASTRINEAE</b>					
52.	<u>Celastrus paniculata</u> , Willd.	+	-	-	-	E
	<b>RHAMNACEAE</b>					
53.	<u>Zizyphus jujuba</u> , Lamp.	+	-	F	-	-
54.	<u>Zizyphus nummularia</u> , W & A.	+	-	F	-	-
	<b>SAPINDACEAE</b>					
55.	<u>Sapindus trifoliatus</u> , Linn.	+	-	-	R	-
	<b>ANACARDIACEAE</b>					
56.	<u>Buchanania lanzan</u> , Spreng.	+	-	F	-	-
57.	<u>Mangifera Indica</u> , L. (Aam), Tree.	+	+	F	-	-
58.	<u>Semecarpus anacardium</u> , Linn.	+	-	-	R	-
	<b>MORINGACEAE</b>					
59.	<u>Moringa oleifera</u> , Lamp.	+	+	F	-	-

S.No.	Classified list of plants	Ethnobotanical informations		Occurrence		
		Nath	Others			
	LEGUMINOSAE					
60.	<u>Abrus precatorius</u> , Linn.	+	-	F	-	-
61.	<u>Acacia arabica</u> , Willd.	+	+	F	-	-
62.	<u>Acacia catechu</u> , Willd.	+	+	F	-	-
63.	<u>Albizia lebeck</u> , Benth.	+	-	F	-	-
64.	<u>Albizia procera</u> , Benth.	+	-	-	R	-
65.	<u>Bauhinia purpurea</u> , Linn.	+	-	F	-	-
66.	<u>Bauhinia racemosa</u> , Lam.	+	-	F	-	-
67.	<u>Bauhinia tomentosa</u> , Linn.	+	+	F	-	-
68.	<u>Bauhinia variegata</u> , Linn.	+	+	F	-	-
69.	<u>Butea monosperma</u> , Lam.	+	-	F	-	-
70.	<u>Caesalpinia crista</u> , Linn.	+	-	F	-	-
71.	<u>Caesalpinia pulcherima</u> , Swartz.	+	-	F	-	-
72.	<u>Cajanus cajan</u> , (Linn) Mill Sp.	+	+	F	-	-
73.	<u>Cajanus indicus</u> , Spreng.	+	-	F	-	-
74.	<u>Cassia fistula</u> , Linn.	+	+	F	-	-
75.	<u>Cassia obtusifolia</u> , L.	+	-	F	-	-
76.	<u>Cassia occidentalis</u> , Linn.	+	-	F	-	-

S.No.	Classified list of plants	Ethnobotanical informations		Occurrence		
		Nath	Others			
77.	<u>Cassia tora</u> , Linn.	+	+	F	-	-
78.	<u>Cicer arietinum</u> , Linn.	+	-	F	-	-
79.	<u>Clitoria ternatea</u> , Linn.	+	-	F	-	-
80.	<u>Crotalaria juncea</u> , Linn.	+	+	F	-	-
81.	<u>Dalbergia latifolia</u> , Roxb.	+	+	-	R	-
82.	<u>Dalbergia sissoo</u> , Roxb.	+	+	F	-	-
83.	<u>Desmodium gangeticum</u> , DC.	+	-	-	-	E
84.	<u>Dolichos biflorus</u> , Linn.	+	-	F	-	-
85.	<u>Dolichos lablab</u> , Linn.	+	-	F	-	-
86.	<u>Lathyrus sativus</u> , Linn.	+	-	F	-	-
87.	<u>Medicago sativa</u> , Linn.	+	-	-	R	-
88.	<u>Mimosa pudica</u> , Linn.	+	-	F	-	-
89.	<u>Mucuna prurita</u> , Hook.	+	-	F	-	-
90.	<u>Neptunia triquetra</u> , Benth.	+	-	F	-	-
91.	<u>Phaseolus trilobus</u> , Ait.	+	-	F	-	-
92.	<u>Pithecellobium dulce</u> , Roxb.	+	-	-	R	-
93.	<u>Pongamia pinnata</u> , Linn.	+	-	F	-	-
94.	<u>Psoralea corylifolia</u> , L.	+	-	-	R	-

S.No.	Classified list of plants	Ethnobotanical informations		Occurrence		
		Nath	Others			
95.	<u>Saraca indica</u> , Linn.	+	-	F	-	-
96.	<u>Tamarindus indicus</u> , Linn.	+	-	F	-	-
97.	<u>Tephrosia purpurea</u> , Linn.	+	-	F	-	-
98.	<u>Trigonella emodi</u> , Benth.	+	-	F	-	-
99.	<u>Trigonella foenumgraecum</u> , Linn.	+	-	F	-	-
100.	<u>Uraria picta</u> , Desv. ROSACEAE	+	-	-	-	E
101.	<u>Potentilla supina</u> , Linn.	+	-	F	-	-
102.	<u>Rosa alba</u> , Linn. CRASSULACEAE	+	+	F	-	-
103.	<u>Bryophyllum calycinum</u> , Saliat. COMBRETACEAE	+	-	F	-	-
104.	<u>Anageissus latifolia</u> , Wall.	+	-	F	-	-
105.	<u>Anageissus pendula</u> , Edgw.	+	-	F	-	-
106.	<u>Terminalia arjuna</u> , W.& A.	+	-	F	-	-
107.	<u>Terminalia belerica</u> , Roxb. MYRTACEAE	+	-	F	-	-
108.	<u>Eucalyptus globulus</u> , Labill.	+	-	F	-	-

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		Nath	Others			
109.	<u>Eugenia jambolana</u> , Lam.	+	+	F	-	-
110.	<u>Psidium guajava</u> , Linn. LYTHRACEAE	+	-	F	-	-
111.	<u>Ammannia baccifera</u> , Linn.	+	-	F	-	-
112.	<u>Lawsonia inermis</u> , Roxb.	+	-	F	-	-
113.	<u>Woodfordia fruticosa</u> , Kurz. ONAGRACEAE	+	-	F	-	-
114.	<u>Trapa natans</u> , Linn. PASSIFLOREAE	+	-	F	-	-
115.	<u>Carica papaya</u> , Linn. CUCURBITACEAE	+	+	F	-	-
116.	<u>Banincasa hispida</u> , Cogh.	+	-	F	-	-
117.	<u>Citrullus vulgaris</u> , Schrad.	+	-	F	-	-
118.	<u>Cucumis melo</u> , Linn.	+	-	F	-	-
119.	<u>Cucumis sativus</u> , Linn.	+	-	F	-	-
120.	<u>Cucurbita maxima</u> , Duchesn.	+	-	F	-	-
121.	<u>Cucurbita pepo</u> , Linn.	+	-	F	-	-
122.	<u>Lagenaria vulgaris</u> , Ser.	+	-	F	-	-

S.No.	Classified list of plants	Ethnobotanical informations		Occurrence		
		Nath	Others			
123.	<u>Luffa echinata</u> , Roxb.	+	-	F	-	-
124.	<u>Momordica dioica</u> , Roxb. CACTACEAE	+	+	-	R	-
125.	<u>Opuntia dillenii</u> , Haw.; DC. UMBELLIFERAE	+	-	F	-	-
126.	<u>Centella asiatica</u> , (Linn) Urban.	+	-	-	-	E
127.	<u>Hydrocotyle rotundifolia</u> , Roxb.	+	-	-	R	-
128.	<u>Trachyspermum ammi</u> , Linn. Sprague. RUBIACEAE	+	-	F	-	-
129.	<u>Adina cordifolia</u> , Hook F.	+	-	F	-	-
130.	<u>Gardenia gummifera</u> , Linn. f.	+	-	F	-	-
131.	<u>Mitragyna parvifolia</u> , (Roxb.) Korth.	+	+	F	-	-
132.	<u>Morinda tinctoria</u> , Roxb.	+	-	F	-	-
133.	<u>Oldenlandia corymbosa</u> , Linn. COMPOSITAE	+	-	F	-	-
134.	<u>Ageratum conyzoides</u> , Linn.	+	+	F	-	-
135.	<u>Artemisia vulgaris</u> , Linn.	+	-	F	-	-
136.	<u>Bidens biternata</u> , (Laur) Merr.	+	-	F	-	-

S.No.	Classified list of plants	Ethnobotanical informations			Occurrence		
		Nath	Others				
137.	<u>Blumea lacera</u> , DC.	+	-	F	-	-	-
138.	<u>Echinops echinatus</u> , Roxb.	+	-	F	-	-	-
139.	<u>Eclipta alba</u> , Hassk.	+	-	F	-	-	-
140.	<u>Elephantopus scaber</u> , Linn.	+	-	F	-	-	-
141.	<u>Helianthus annuus</u> , Linn.	+	-	F	-	-	-
142.	<u>Launaea nudicaulis</u> , Hook.	+	-	F	-	-	-
143.	<u>Sonchus arvensis</u> , Linn.	+	-	F	-	-	-
144.	<u>Sphaeranthus indicus</u> Linn.	+	-	F	-	-	-
145.	<u>Tagetes erecta</u> , Linn.	+	-	F	-	-	-
146.	<u>Tricholepis glaberrima</u> , DC.	+	-	F	-	-	-
147.	<u>Tridax procumbens</u> , L.	+	+	F	-	-	-
148.	<u>Vernonia anthelminticum</u> , Willd.	+	+	F	-	-	-
149.	<u>Vernonia cinerea</u> , Less.	+	-	F	-	-	-
150.	<u>Xanthium strumarium</u> , Linn.	+	+	F	-	-	-
	PLUMBAGINACEAE						
151.	<u>Plumbago zeylanica</u> , Linn.	+	+	-	-	-	E
	SAPATACEAE						
152.	<u>Madhuca indica</u> , J.F.Gmel.	+	+	F	-	-	-

S.No.	Classified list of plants	Ethnobotanical informations			Occurrence	
		Nath	Others			
	EBENACEAE					
153.	<u>Diospyros melanoxylon</u> , Brand.	+	-	F	-	-
	OLEACEAE					
154.	<u>Nyctanthes arborescens</u> , Linn.	+	+	F	-	-
	APOCYNACEAE					
155.	<u>Holarrhena antidysenterica</u> , Wall Cat.	+	-	-	-	E
156.	<u>Nerium indicum</u> , Mill.	+	-	F	-	-
157.	<u>Nerium odoratum</u> , Soland.	+	-	F	-	-
158.	<u>Vinca rosea</u> , Linn.	+	-	F	-	-
159.	<u>Wrightia tinctoria</u> , Br.	+	-	F	-	-
	ASCLEPIADACEAE					
160.	<u>Calotropis gigantea</u> , R.B.	+	+	F	-	-
161.	<u>Calotropis procera</u> , R.Br.	+	+	F	-	-
162.	<u>Gynema sylvestre</u> , R.Br.	+	-	F	-	-
163.	<u>Hemidesmus indicus</u> , R.Br.	+	-	-	-	E
164.	<u>Trichodesma zeylanicum</u> , Br.	+	-	-	R	-
165.	<u>Tylophora indica</u> , (Burm.f.) Merr.	+	-	-	R	-



S.No.	Classified list of plants	Ethnobotanical informations		Occurrence		
		Nath	Others			
	BORAGINACEAE					
166.	<u>Cordia macleodii</u> , Hook f. & Thoms.	+	-	-	R	-
167.	<u>Cordia myxa</u> , Linn.	+	-	-	R	-
	CONVOLVULACEAE					
168.	<u>Convolvulus arvensis</u> , Linn.	+	+	F	-	-
169.	<u>Convolvulus pluricaulis</u> , chois.	+	-	F	-	-
170.	<u>Cuscuta reflexa</u> , Roxb.	+	-	F	-	-
171.	<u>Ipomoea aquatica</u> , Forsk.	+	+	F	-	-
172.	<u>Ipomoea fistulosa</u> , Mart.	+	-	F	-	-
173.	<u>Ipomoea nil</u> , (L) Rath.	+	-	F	-	-
174.	<u>Ipomoea pestigridis</u> , L.	+	-	F	-	-
175.	<u>Ipomoea turpathum</u> , R.Br.	+	-	F	-	-
	SOLANACEAE					
176.	<u>Capsicum annuum</u> , L.Watt.	+	-	F	-	-
177.	<u>Datura fastuosa</u> , Linn.	+	+	F	-	-
178.	<u>Datura innoxia</u> , Mill.	+	+	F	-	-
179.	<u>Datura metal</u> , Linn.	+	+	F	-	-
180.	<u>Nicotiana tabacum</u> , Linn.	+	+	F	-	-

S.No.	Classified list of plants	Ethnobotanical informations		Occurrence		
		Nath	Others			
181.	<u>Physalis minima</u> , Linn.	+	-	F	-	-
182.	<u>Solanum indicum</u> , L.	+	-	F	-	-
183.	<u>Solanum melongena</u> , Linn.	+	-	F	-	-
184.	<u>Solanum nigrum</u> , Linn.	+	-	F	-	-
185.	<u>Solanum surratense</u> , Linn.	+	+	F	-	-
186.	<u>Solanum xanthocarpum</u> , Schraud and Wendl.	+	+	F	-	-
	SCROPHULARINEAE					
187.	<u>Alectra parasitica</u> , A.Rich. Var. <u>Chitrakutensis</u> , Rau.	+	+	-	R	-
188.	<u>Limnophyllia indica</u> , (Linn) Druce.	+	-	F	-	-
	PEDALIACEAE					
189.	<u>Martynia annua</u> , Linn.	+	-	F	-	-
190.	<u>Petalium murex</u> , Linn Druce.	+	-	F	-	-
191.	<u>Sesamum indicum</u> , Linn.	+	-	-	R	-
	ACANTHACEAE					
192.	<u>Adhatoda vasica</u> , Nees.	+	+	F	-	-
193.	<u>Andrographis paniculata</u> , Nees.	+	-	F	-	-
194.	<u>Asteracantha longifolia</u> , Nees.	+	-	F	-	-
195.	<u>Barleria cristata</u> , L.	+	-	F	-	-

S.No.	Classified list of plants	Ethnobotanical informations		Occurrence		
		Nath	Others			
196.	<u>Barleria prionitis</u> , Linn.	+	-	F	-	-
197.	<u>Elytararia acaulis</u> , (L.F.) Lindau.	+	-	-	-	E
198.	<u>Lepidagathis trinervis</u> , Nees.	+	+	F	-	-
199.	<u>Peristrophe bicalyculata</u> , Nees.	+	-	F	-	-
	VERBENACEAE					
200.	<u>Lantana camara</u> , Linn.	+	-	F	-	-
201.	<u>Lippia nodiflora</u> , Rich.	+	-	F	-	-
202.	<u>Tectona grandis</u> , Linn.	+	-	F	-	-
203.	<u>Vitex negundo</u> , Linn.	+	-	F	-	-
	LABIATAE					
204.	<u>Hyptis suaveolens</u> , Poit.	+	-	F	-	-
205.	<u>Leucas aspera</u> , Spreng.	+	-	F	-	-
206.	<u>Leucas cephalotes</u> , Spreng.	+	-	F	-	-
207.	<u>Mentha arvensis</u> , Linn.	+	-	F	-	-
208.	<u>Ocimum americanum</u> , Linn.	+	-	F	-	-
209.	<u>Ocimum basilicum</u> , Linn.	+	+	F	-	-
210.	<u>Ocimum gratissimum</u> , L.	+	-	F	-	-
211.	<u>Ocimum sanctum</u> , Linn.	+	-	F	-	-

S.No.	Classified list of plants	Ethnobotanical informations		Occurrence		
		Nath	Others			
212.	<u>Orthosiphon pallidus</u> , Royle. NYCTAGINACEAE	+	-	F	-	-
213.	<u>Boerhaavia chinensis</u> , Linn.	+	-	F	-	-
214.	<u>Boerhaavia diffusa</u> , L. AMARANTHACEAE	+	-	F	-	-
215.	<u>Achyranthes aspera</u> , Linn.	+	+	F	-	-
216.	<u>Amaranthus gracilis</u> , Desf.	+	-	F	-	-
217.	<u>Amaranthus spinosus</u> , Linn.	+	+	F	-	-
218.	<u>Amaranthus viridis</u> , Linn. CHENOPODIACEAE	+	-	F	-	-
219.	<u>Beta vulgaris</u> , Linn.	+	+	F	-	-
220.	<u>Chenopodium album</u> , Linn.	+	-	F	-	-
221.	<u>Spinacia oleracea</u> , Linn. POLYGONACEAE	+	-	F	-	-
222.	<u>Polygonum glabrum</u> , willd. ARISTOLOCHIACEAE	+	-	F	-	-
223.	<u>Aristolochia bracteata</u> , Retz.	+	-	-	R	-

S.No.	Classified list of plants	Ethnobotanical informations		Occurrence	
		Nath	Others		
	PIPERACEAE				
224.	<u>Piper betle</u> , Linn.	+	-	F	-
	EUPHORBIACEAE				
225.	<u>Acalypha indica</u> , Linn.	+	-	F	-
226.	<u>Emblca officinalis</u> , Gaertn.	+	+	F	-
227.	<u>Euphorbia antiquorum</u> , Linn.	+	+	F	-
228.	<u>Euphorbia hirta</u> , Linn.	+	-	F	-
229.	<u>Euphorbia hypericifolia</u> , Linn.	+	-	F	-
230.	<u>Euphorbia thymifolia</u> , Linn.	+	-	F	-
231.	<u>Jatropha gossypifolia</u> , Linn.	+	-	F	-
232.	<u>Mallotus philippinensis</u> , Muell. Arg.	+	-	-	E
233.	<u>Phyllanthus niruri</u> , Linn.	+	-	F	-
234.	<u>Phyllanthus simplex</u> , Retz.	+	-	F	-
235.	<u>Ricinus communis</u> , Linn.	+	-	F	-
	MORACEAE				
236.	<u>Ficus benghalensis</u> , Linn.	+	+	F	-
237.	<u>Ficus racemosa</u> , Wau. Cat.	+	+	F	-
238.	<u>Ficus religiosa</u> , Linn.	+	-	F	-

S.No.	Classified list of plants	Ethnobotanical informations		Occurrence		
		Nath	Others			
239.	<u>Ficus rumphii</u> , Blume.	+	-	F	-	-
240.	<u>Holoptelia integrifolia</u> , Planch.	+	-	F	-	-
	ZINGIBERACEAE					
241.	<u>Curcuma domestica</u> , Salisb.	+	-	F	-	-
242.	<u>Zingiber officinale</u> , Rosc.	+	+	F	-	-
	AMARYLLIDACEAE					
243.	<u>Crinum defixum</u> , Ker-Gawl.	+	-	F	-	-
244.	<u>Curculigo orchioidea</u> , Gaertn.	+	-	-	-	E
	LILIACEAE					
245.	<u>Allium cepa</u> , Linn.	+	-	F	-	-
246.	<u>Allium sativum</u> , Linn.	+	-	F	-	-
247.	<u>Aloe barbadensis</u> , Mill.	+	-	F	-	-
248.	<u>Asparagus racemosus</u> , Willd.	+	+	F	-	-
249.	<u>Chlorophytum tuberosum</u> , Baber.	+	-	-	-	E
250.	<u>Gloriosa superba</u> , Linn.	+	-	-	-	E
251.	<u>Urginea indica</u> , Kunth.	+	+	F	-	-
	COMMELINACEAE					
252.	<u>Commelina benghalensis</u> , L.	+	+	F	-	-

S.No.	Classified list of plants	Ethnobotanical informations		Occurrence		
		Nath	Others			
	<u>PALMAE</u>					
253.	<u>Borassus flabellifer</u> , Linn.	+	-	-	R	-
254.	<u>Phoenix sylvestris</u> , Roxb.	+	-	F	-	-
	<u>ARACEAE</u>					
255.	<u>Colocasia esculenta</u> , (Linn) Schott.	+	-	F	-	-
256.	<u>Pistia stratiotes</u> , Linn.	+	+	F	-	-
	<u>TYPHACEAE</u>					
257.	<u>Typha angustata</u> , Chaub. & Bory.	+	-	F	-	-
	<u>CYPERACEAE</u>					
258.	<u>Eleocharis dulcis</u> , (Burm. f.) Trinius.	+	-	F	-	-
259.	<u>Scirpus grossus</u> , Linn.	+	-	F	-	-
	<u>GRAMINEAE</u>					
260.	<u>Avena sativa</u> , Linn.	+	-	F	-	-
261.	<u>Cynodon dactylon</u> , Linn.	+	-	F	-	-
262.	<u>Dendrocalamus strictus</u> , Nees.	+	+	-	R	-
263.	<u>Hordeum vulgare</u> , Linn.	+	-	F	-	-
264.	<u>Oryza rufipogon</u> , Griff.	+	-	F	-	-
265.	<u>Oryza sativa</u> , Linn.	+	-	F	-	-

S.No.	Classified list of plants	Ethnobotanical informations		Occurrence		
		Nath	Others			
266.	<u>Pennisetum typhoides</u> , Stapf.	+	-	F	-	-
267.	<u>Saccharum spontaneum</u> , L.	+	-	F	-	-
268.	<u>Sorghum vulgare</u> , Linn.	+	-	F	-	-
269.	<u>Triticum vulgare</u> , Vill.	+	-	F	-	-
270.	<u>Vetiveria zizanioides</u> , Linn.	+	-	F	-	-
	<b>CRYPTOGAMS</b>					
	<u>SELAGINELLAE</u>					
271.	<u>Selaginella bryopteris</u> , (L) Baker.	+	+	-	-	E
	<u>POLYPODIACEAE</u>					
272.	<u>Actiniopteris dichotoma</u> , (Kuhu) Hook.	+	+	-	R	-

+ = Indicates information obtained  
 - = Indicates no information obtained

Occurrence : F = Frequent  
 R = Rare  
 E = Endangered



## RARE AND ENDANGERED PLANTS

S.No.	Botanical name	Occurrence	Main ethnobotanical use	Causes of being rare and Endangered
1.	<u>Actinioipteris dichatoma</u> (Kuhu) Hook	R	Medicinal	Grazing and trampling by cattles.
2.	<u>Albizzia procera</u> . Benth	R	Medicinal	Cutting of plants for fuel.
3.	<u>Alectra parasitica</u> , A. Rich. Var. <u>Chitrakutensis</u> , Rau.	R	Medicinal	Destruction of host plant . ( <u>Vitex neyundo</u> )
4.	<u>Aristolochia bracteata</u> , Retz.	R	Medicinal	Grazing and trampling by cattles.
5.	<u>Borassus flaballifer</u> , Linn.	R	Mat & toys	Cutting of plants for timber.
6.	<u>Celastrus paniculata</u> , Willd.	E	Medicinal	Grazing and trampling by cattles.
7.	<u>Centella asiatica</u> (Linn.) Urban. Roxb.	E	Medicinal	Grazing and trampling by cattles.
8.	<u>Chlorophytum tuberosum</u> , Baber.	E	Medicinal	Grazing and trampling by cattles.
9.	<u>Cissampelos pareira</u> , Linn.	R	Medicinal	Cutting of plants for timber & Agri. impliments.
10.	<u>Cordia macleodii</u> , Hook F.	R	Medicinal	Cutting of plants for timber & Agri. impliments.
11.	<u>Cordia myxa</u> , Linn.	R	Medicinal	Cutting of plants for timber & Agri. impliments.
12.	<u>Curculigo orchioides</u> , Gaertn.	E	Medicinal	Grazing and trampling by cattles.
13.	<u>Dalbergia latifolia</u> , Roxb.	R	Medicinal	Cutting of plants for timber & Agri. impliments.

S.No.	Botanical name	Occurrence	Main ethnobotanical use	Causes of being rare and Endangered
14.	<u>Dendrocalamus strictus</u> , Nees.	R	Basket/Musical Instruments	Rarely cultivated for thatching purpose.
15.	<u>Desmodium gangeticum</u> . D.C.	E	Medicinal	Grazing and trampling by cattles.
16.	<u>Dillenia indica</u> . Linn.	R	Medicinal	Cutting of plants for fuel.
17.	<u>Elytararia acaulis</u> (L.F.) Lindau.	E	Medicinal	Grazing and trampling by cattles.
18.	<u>Gloriosa superba</u> , Linn.	E	Medicinal	Grazing and trampling by cattles.
19.	<u>Helicteres isora</u> , Linn.	R	Medicinal	Grazing and trampling by cattles.
20.	<u>Hemidesmus indicus</u> R. Br.	E	Medicinal	Grazing and trampling by cattles.
21.	<u>Holarrhena antidysenterica</u> , Wall cat.	E	Medicinal	Cutting of plants for fuel & making toys.
22.	<u>Hydrocotyle rotundifolia</u> , Roxb.	R	Medicinal	Grazing and trampling by cattles.
23.	<u>Mallotus philippinensis</u> , Muell. Arg.	E	Medicinal & dye	Cutting of plants for fuel.
24.	<u>Medicago sativa</u> , Linn.	R	Fooder	Cutting of plants for fuel.
25.	<u>Momordica dioica</u> , Roxb.	R	Vegetable & Medicinal	Cutting of plants for fuel.
26.	<u>Pithecellobium dulce</u> , Roxb.	R	Medicinal	Cutting of plants for timber & Agri. impliments.

S.No.	Botanical name	Occurrence	Main ethnobotanical use	Causes of being rare and Endangered
27.	<u>Plumbago zeylanica</u> , Linn.	E	Medicinal	Grazing by cattles.
28.	<u>Psoralea corylifolia</u> , L.	R	Medicinal & Fooder	Excessive use of plants as fooder.
29.	<u>Sapindus trifoliatus</u> , Linn.	R	Medicinal	Cutting of plants for timber & fuel.
30.	<u>Selaginella bryopteris</u> (L) Baker	E	Medicinal	Grazing and trampling by cattles.
31.	<u>Semecarpus anacardium</u> , Linn.	R	Medicinal	Cutting of plants for timber & fuel.
32.	<u>Sesamum indicum</u> , Linn.	R	Medicinal	Cutting of plants for timber & fuel.
33.	<u>Shorea robusta</u> , Goerth. F.	R	Building material	Cutting of plants for timber & fuel.
34.	<u>Trychodesma zeylanicum</u> Br.	R	Medicinal	Grazing and trampling by cattles.
35.	<u>Tylophora indica</u> (Burm. F.) Merr	R	Medicinal	Grazing and trampling by cattles.
36.	<u>Urena lobata</u> , Linn.	R	Rope manufacture	Cutting, grazing & trampling by cattles.
37.	<u>Uraria picta</u> , Desv.	E	Medicinal	Grazing and trampling by cattles.

Occurrence : R = Rare, E = Endangered

TABLE - 3

## Totems bases on plants

S.No. Botanical Name	Method of Use/Totems
1. <u>Acacia arabica</u> , Willd.	A stone is tied with thread and it is taken around over the head of the patient suffering from malaria, now it is tied around the stem of <u>A. arabica</u> early in the morning either on Sunday or Wednesday for the treatment of malaria.
2. <u>Achyranthes aspera</u> . Linn.	(a) The root and leaves are tied on the wrist of the patient on Sunday or Wednesday for the treatment of Jaundice and intermitant fever.  (b) The plant of <u>A. aspera</u> is pulled out with only one hand and the root tied with red thread is put around the waist of a lady suffering from delivery pains to get relief and early delivery .
3. <u>Argemone mexicana</u> . Linn.	A man is asked to run away after seeing the root of <u>A. mexicana</u> either on Sunday or Wednesday answering some questions according to the instructions given by the practitioner to cure malaria.

4. Calotropis gigantia, R.Br. A child suffering from rickets is cured if the water used for his bath is thrown on C. gigantia on Sunday or Wednesday.
5. Cissampelos pareira, Linn. A part of the climber is tied on the wrist of the child suffering from acute dysentery.
6. Clitoria ternatea, Linn. A piece of the root of C. ternatea is tied round the arm of the child on Sunday or Wednesday to cure rickets.
7. Echinops echinatus, Roxb. If a lady feels more pain at the time of delivery and the delivery is delayed, the root of E. echinatus is tied with thread around the waist of the lady for immediate delivery.
8. Euphorbia hypericifolia, Linn. The root of plant is tied with the thread around the ear it is said to be useful for the treatment of malaria fever.
9. Ficus religiosa, Linn.
  - a) A lady suffering from hysteria is said to be cured if she invites the tree on Saturday night, goes there early in the morning on Sunday and takes three rounds of the tree.
  - b) The petiole of the leaves is gradually put in the ear for the treatment of snake bite.
10. Gloriosa superba, Linn.
  - a) If the tuberous root of the G. superba is thrown on the tiles of the house, the

members of the family often quarrel with one another. Hence the plant locally known as "kirkichyan".

b) The root is tied on the wrist and the leg of the women for easy delivery.

11. Gynandropsis gynandra, Linn.

The leaves is rolled and tied around the ear for the treatment of ghost effect.

12. Holoptelia integrifolia (Roxb.)  
Planch.

A piece of the bark of H. integrifolia is tied on the arm early in the morning either on Sunday or Wednesday to the patient suffering from hydrocele.

13. Jatropha gossypifolia, Linn.

The root of J. gossypifolia is put around the neck of the cattle for healing of wounds.

14. Mangifera indica, Linn.

a) The inflorescence of the plant is used to keep away the snakes from the houses.

b) A man is not bitten by snakes and scorpions etc. if the inflorescence of M. indica is smeared with his palms and inhaled for three times.

15. Mimosa pudica, Linn.

If a man rubs the leaves of M. pudica on his body either on Sunday or Wednesday, he will not be bitten by snakes.

16. Nerium indicum. Mill.

The root of N. indicum cut into pieces and tied with white thread is put on the wrist of the patient either on Sunday or Wednesday to cure malaria fever.

17. Plumbago zeylanica, Linn.

The root of P. zeylanica is tied round the arm of the patient on Sunday or Wednesday to cure muscular pain and joint pain.

18. Solanum indicum, Linn.

A small piece of the twig is tied round the arm of the patient to get relief from conjunctivitis.

19. Solanum suratense, Linn.

The root of the plant is taken out on Sunday. It is tied with the cow's horn for some time. This root is now untied with the horn and treated with the smoke of guggul. The treated root is tied with the neck of women for early delivery.

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TABLE - 4  
Flowers, Fruits, Plants and woods as offering to  
Gods and Goddesses

S.No. Botanical Name	Remarks
1. <u>Aegle marmelos</u> , Correa	Leaves used for worship of Lord Shiva.
2. <u>Butea monosperma</u> , Lam.	Wood of the plant is used for 'Mandap' during marriage ceremony. It is also used for 'Haven' during worship.
3. <u>Calotropis gigantia</u> , R.B.	The flowers are offered to lord Shiva.
4. <u>Cucumis sativus</u> , Linn.	The fruits is used on the festival of 'Shri Krishna Janmashtmi'.
5. <u>Curcuma domestica</u> , Salisb.	The powdered rhizome is offered to all the gods and goddesses.
6. <u>Cynadon dactylon</u> , Linn.	The plants are offered to lord 'Ganesha'.
7. <u>Datura metal</u> , Linn.	The flowers and fruits are offered to lord 'Shiva'.
8. <u>Eugenia jambolana</u> , Linn.	The fruits are offered to lord 'Ganesha'.
9. <u>Feronia elephantum</u> , Correa.	Fruits offered to God during worship.
10. <u>Ficus benghalensis</u> , Linn.	Plants is worshipped on 'Akshya Tritiya'.
11. <u>F. religiosa</u> , Linn.	Plant is worshipped to please lord 'Shani'.
12. <u>Hordeum vulgare</u> , Linn.	The young plants are worshipped during 'Nav Ratri'.
13. <u>Mangifera indica</u> , L.	The plant is worshipped for lord 'Prajapati'.



- |   |  |
|---|--|
| 14. <u>Mitragyna parvifolia</u> , (Roxb.) | The wood are offered to lord 'Ganesha'.  |
| 15. <u>Nerium indicum</u> , Mill.         | The flowers are worshipped for goddess 'Durga' and the lord 'Shiva'.   |
| 16. <u>Nymphaea stellata</u> , Willd.     | The flowers are offered the god 'Vishnu'.  |
| 17. <u>Ocimum sanctum</u> , Linn.         | It is believed as a sacred plant and worshipped daily by the tribal people. Its leaves are offered to lord 'Vishnu'. |
| 18. <u>Oryza Sativa</u> , Linn.           | The seeds are offered to all the gods and goddesses during worships.   |
| 19. <u>Piper betle</u> , Linn.            | The leves are offered to lord 'Vishnu', 'Shiva' and goddess 'Durga'.   |
| 20. <u>Zizypus nummularia</u> , W & A.    | Fruits are offered to god 'Shiva'.   |
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TABLE - 5  
Festivals of plants

S.No. Botanical Name	Method of Use/Name of festival
1. <u>Acacia arabica</u> , Willd	The spiny and dry branches of <u>A. arabica</u> are decorated with different coloured flowers. Various fruits are also offered by girls to it on the occasion of the festival "Mamulian" in the month of Bhadrapada*.
2. <u>Butea monosperma</u> , Kuntze	On the last day of the month of Asharh* the fibers obtained from the roots of <u>B. monosperma</u> (locally called as Bakonda), are tied on the wrist of the village people as 'raksha' mainly by the local Brahmins on 'Guru Purnima'.
3. <u>Emblica officinalis</u> , Linn.	Women worship the tree on the occasion of the festival 'Ichchha Navami' celebrated in the month of 'Kartika'* for the fulfilment of their desires.
4. <u>Ficus benghalensis</u> , Linn.	(a) The tree is worshipped by the women in the memory of 'Sati Savitri' on the occasion of 'Akhaya Tiritiya' celebrated in the month of 'Jyeshtha'*. (b) In the month of 'Baisakh' * the rural

girls worshipped the tree on the occasion of the festival 'Akti'.

5. Ocimum sanctum, Linn.

The sacred plant is planted in the houses of various rural inhabitants and worshipped on the occasion of 'Somvati Amavasya'. While worshipping the plant women move in circle around it for one hundred and eight times for the fulfilment of their desires.

6. Solanum xanthocarpum, Schrad & Wendl (L).

In the month of 'Chaitra'\* and 'Kartika'\* while worshipping the 'Bhaiya Duj' the women were found using the plants of *S. xanthocarpum*.

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\* Hindi months of the year

+ PLANTS/PLANT PARTS RECORDED TO BE USED AS ANTIDOTE TO SNAKE BITE, SCORPION STING AND INSECT BITE

[illegible]



[illegible]

## DISCUSSION

With the advancement of the modern civilization the traditional knowledge about the use of plants for various purposes amongst the aboriginal culture is rapidly disappearing. The importance and urgent need of the ethnobotanical studies to find out the secrets of nature through the collection of data from such rapidly disappearing primitive culture have also been recognised by various workers. (Harshberger, 1896; Schultes, 1962; Jain, 1967; De, 1968; Jain, 1981, Singh *et. al.*, 1994; Maheshwari 1996, Das, 1997; Jain, 2000 ; Saxena & Patnaik, 2000).

The plants are used as medicines, food, fooder etc. among the primitive societies. The knowledge about the uses of plants is totally based on their long felt traditional experiences. It will be of considerable significance if due importance is given to the value of such experiences.

It is more convenient and useful if any ethnobotanical study is carried out in a limited area geographical units or tribes (Jain 1967). Keeping this in view the present ethnobotanical studies were taken up on the 'Nath' (Primitive people) inhabiting in different localities of Bundelkhand region Uttar Pradesh and Madhya Pradesh. The information enumerated in the text is based on the personal interview with the people of 'Nath' dominated villages of Banda, Kabarai, Mahoba, Moth & Jhansi Tahsils of Uttar Pradesh and Chhatarpur tahsil of Madhya Pradesh provided information about the ethnobotanical uses of plants. Besides a number

of rural people including cowherds, goatherds, shepherds etc. were also interviewed. Many vaidyas, medicinman and herbalist of the area have also provided a number of valuable information about the traditional uses of plants.

It was observed that the 'Nath' appeared to be more conservative and did not like to share their knowledge with the others, the rural medicinman and herbalist seemed proud of telling the secrets about the traditional knowledge of plant, even some of them required great persuasion similar experiences were also reported by Jain (1965) during the survey of the tribals of Bastar, Madhya Pradesh.

A classified list of the plants of ethnobotanical records enumerated in the text is presented in the table- 1, giving the source of information about the plant(s) and its occurrence. It is evident (Table-1) that the ethnobotanical information are mainly based on the personal interviews and field visits of the 'Nath' inhabited area. The data on occurrence of the plant species (frequent, rare, endangered) based on visual observation indicated that out of 272 plant species of ethnobotanical importance 235 plant species are frequent, 24 plants species are rare and 13 plant species are endangered as regards their availability or occurrence in the area under study.

There appears a significant impact of interaction between the man and environment. It indicate the over exploitation of the plant species by the rural people/for various uses other than ethnobotanical ones (Table-2)



## 1. CATEGORISATION OF PLANTS :

The ethnobotanical surveys carried out in the area under study during last four years, have revealed information regarding the ethnobotanical uses of 272 plant species belonging to 211 genera and 74 families (Table 1). These plants are classified under different categories following the scheme adopted by Sharma and Lakshminarasimhan (1986).

### A. FOOD PLANTS

#### (i) PICKLES, CONDIMENTS AND SPICES :-

Pickles	<u>Capsicum annum</u> , <u>Emblica officinalis</u> , <u>Mangifera indica</u> , <u>Moringa oleifera</u> .
Condiments	<u>Tamarindus indicus</u> .
Spices	<u>Brassica nigra</u> , <u>Capsicum annum</u> , <u>Trigonella foenumgraecum</u> .

#### (ii) LACTATION INDUCING PLANTS IN WOMEN :-

Improvement of Lactation Acalypha indica, Asparagus recemosus, Cuscuta reflexa, Euphobia hirta, Hemidesmus indicus, Launaea nudicaulis.

#### (iii) VEGETABLES :

Bulb	<u>Allium cepa</u>
Flower	<u>Bauhinia variegata</u>
Fruits	<u>Celastrus paniculata</u> , <u>Crotalaria juncea</u> , <u>Cucurbita maxima</u> , <u>C. pepo</u> , <u>Dolichos lablab</u> , <u>Lathyrus sativus</u> , <u>Momordica diocia</u> , <u>Moringa oleifera</u> .

Leaves

Amaranthus spinosus, Bauhinia  
variegata, Brassica compestris, B. juncea,  
Centella asiatica, Chenopodium album,  
Commelina beghalensis, Corchorus  
antichorus, Lathyrus sativus, Oxalis  
corniculata, O. latifolia, Solanum nigrum,  
Trigonella emodi, T. foenumgraecum.

Corm/Rhizome/Tuber

Colocasia esculenta, Typha angustata

Whole plant

Raphanus sativus.

**(iv) WILD EDIBLE PLANT :-**

The tribals and rural inhabitants were found using wild edible plants or plant parts as supplement of their food during scarcity. Based on the plant part(s) eaten. They can be classified into following groups :

Flowers

Madhuca indica

Fruits

Borassus flabellifer, Buchanania lanzan,  
Carica papaya, Gardenia gummifera,  
Citrullus vulgaris, Cucumis melo, C.  
Sativus, Eugenia Jambolana, Ficus  
racemosa, Flacourtia indica, Mangifera  
indica, Physalis minima, Psidium  
guajava, Solanum nigrum, Trapa natans,  
Zizyphus jujuba, Z. numularia.

Rhizome

Scirpus grossus.

Seeds

Buchania lanzan, Gardenia gummifera,  
Cleome viscosa, Impatiens balsamia,  
Oryza sativa, oxalis corniculata.

Whole plant

Raphanus sativus.

## B. FODDER PLANTS

(i) Feed and fodders for domestic animals

Amaranthus spinosus, Avena sativa.

Brassica compestris, B. juncea.

Chenopodium album, Convolvulus

arvensis, Hordeum vulgare, Lathyrus

sativus, Medicago sativa, Oryza

rufipogon, Peristrophe bicalyculata.

Sorghum vulgare.

## C. MEDICINAL PLANTS

In the account given below the plants are categorised on the basis of their ethnobotanical uses with respect to a particular disease in human beings.

### Abortifacient

Carica papaya

### Acidity

Trapa natens

### Abscess

Achyranthes aspera

### Antidotes to Snake bite, Scorpion sting and Insect bite

Acalypha indica, Achyranthes aspera, Adhatoda vasica, Ageratum conyzoides, Albizzia lebbeck, Anageissus latifolia, Andrographis paniculata, Argemone maxicana, Artemisia vulgaris, Azadirachta indica, Balanites aegyptiaca, Bauhinia tomentosa, Bidens biternata, Boerhavia diffusa, Borassus

flabellifer, Calotropis gigantia, Cassia fistula, C. occidentalis, C. tora, Cissampelos pareira, Citrus medica, Cleome viscosa, Clitaria ternatea, Colocasia esculenta, Curculigo orchoides, Datura metel, Desmodium gangeticum, Eclipta alba, Eugenia jambolana, Euphorbia hypericifolia, E. thymifolia, Ficus racemosa, Flacourtia indica, Gloriosa superba, Gossypium herbaceum, Gymnema sylvestre, Gynandropsis gynandra, Helicteres isora, Hemidesmus indicus, Ipomoea aquatica, I. fistulosa, I. turpathum, Leucas aspera, L. cephalotes, Mangifera indica, Martynia annua, Mimosa pudica, Momordica dioica, Morinda tintoria, Nicotiana tabacum, Ocimum basilicum, O. sanctum, Oxalis corniculata, Paristrophe bicalyculata, Phyllanthus niruri, Ricinus communis, Scirpus grosus, Solanum indicum, S. suratens, S. xanthocarpum, Tephrosia purpurea, Tinospora cardifolia, Uraria picta, Urginea indica, Vernonia anthelminticum, Vetiveria zizanioides.

#### Anemia

Amaranthus gracilis

#### Asthma

Achyranthes aspera, Barleria prionitis, Blumea lacera, Calotropis gigantia, Calotropis procera, Curcuma domestica, Datura fastuosa, Euphorbia antiquorum, Euphorbia hirta, Mentha arvensis, Pennisetum typhoides, Tephrosia purpurea and Tylophora indica.

#### Backache

Nerium odorum, Trachyspermum amni, Tribulus terrestris and Zingiber officinale.

**Boils**

Albizzia lebbek, Amaranthus spinosus, Barlaria cristata, cassia obtusifolia, Datura fastuosa, D. innoxia, D. metal, Elytararia acaulis, Ficus benghalensis, Hemidesmus indicus, Hordeum vulgare, Ipomoea fistulosa, I. pestigridis, Jatropha gossypifolia, leucas cephalotes, Linum uritissimum, Luffa echinata, Momardica dioica, Moringa oleifara, Mucuna prurita, ocimum americanum, O. basillicum, Portulaca oleracea, Ricinus communis, Sapindus trifolius, Sida acuta, xanthium strumarium and Zizyphus jujuba.

**Bone fracture**

Achyranthes aspera.

**Brain tonic**

Abrus precatorius, Centella asiatica, Convolvulus pluricaulis and Sphaeranthus indicus.

**Cancer**

Xanthium strumarium.

**Candidiasis.**

Bauhinia racemosa.

**Catract**

Solanum suratense.

**Cooling effect**

Citrullus vulgaris and Lawsonia inermis.

**Colic/Stomachache/Indigestion**

Barlaria prionitis, Bauhinia purpurea, Caesalpinia cristata, Coculus hirsutus, Cucumis sativus, Diospyros melanoxylon, Eleocharis dulcis, Eugenia

jambolana, Euphorbia thymifolia, Hyptis suaveolens, Melia azadirach and Polygonum glabrum.

### Constipation

Bauhinia variegata, Mallotus philippinensis, Physalis minima, Terminalia belerica and Trachyspermum amni.

### Cough/Whooping cough/Cold

Barleria prionitis, Boswellia serrata, Chenopodium album, cissampelos pareira, Elytararia acaulis, Gossypium herbaceum, Ipomoea nil, Linum usitissimum, Mentha arvensis, Piper betel, Terminalia belerica, Tinospora cordifolia, Zingiber officinale and Zizyphus nummularia.

### Cuts/Wounds

Aloe barbadensis, Ageratum conyzoides, Argemome maxicana, Banincasa hispida, Bryophyllum calycinum, Caesalpinia pulcherima, Cajanus indicus, Crinum defixum, Dillenia indica, Eclipta alba, Elytraria acaulis, Grewia hirsuta, Gynandropsis gynandra, Jatropha gossypifolia, Lantana camara, Lapidagathis trinervis, Oxalis corniculata, Sida cordifolia, Tridax procumbens, Triumfetta rotundifolia and zizyphus nummularia.

### Dendruff

Azadirachta indica, Citrus medica, Cuscuta reflexa, Emblica officinalis and Ranunculus scleratus.

### Diarrhoea/Dysentery

Aegle marmelas, Actinopteris dichotoma, Anageissus pendula, Bauhinia lanzan, B. tomentosa, Boerhavia diffusa, Centella asiatica.

Celastrus paniculatus, Cissampelas pareira, Cocculus hirsutus, Chorchorus trilocularis, Curculigo orchioides, Dalbergia sissoo, Desmodium gangatium, Eleocharis dulcis, Elephantopus scaber, Euphorbia hirta, E. hypercifolia, Ficus benghalensis, F. racemosa, Fumaria parvifolia, Helicteres isora, Holarrhena antidysenterica, Lippia nodiflora, Mimosa pudica, Neptunia triquetra, Ocimum americanum, Oxalis corniculata, Sida cordata, Solanum xanthocarpum, Tamirindus indica, Terminalia arjuna, Trichodesma zeylanicum, Trigonella foenumgraecum, Varnonina cinerea and Wrightia tinctoria.

### **Diabetes**

Aegle marmelos, Asteracantha longifolia, Convolvulus pluricaulis, Embllica officinalis, Gymnema sylvestre, Sesamum indicum and Sorghum vulgare.

### **Diuratic**

Abutilon indicum.

### **Ear Complaints**

Achyranthes aspera, Allium Cepa, A. sativum, Barlaria cristata, Celastrus paniculata, Cleome viscosa, Crinum defixum, Ficus benghalensis and Solanum nigrum.

### **Easy delivery**

Achyranthes aspera.

### **Elephantiasis**

Limnophilia indica.

### **Eye diseases**

Acacia arabica, Aagle marmelos, Albizzia lebbek, Azadirachta

indica, Blumea lacera, Cajanus cajan, Cynodon dactylon, Rosa alba, Solanum indicum, S. xanthocarpum, Sphaeranthus indicus and Tamirindus indica

### **Fever/Malarial Fever**

Abrus precatorius, Abutilon hirtum, A. indicum, Achyranthes aspera, Asteracantha longifolia, Azadirachta indica, Barleria prionitis, Caesalpinia cristata, Calotropis gigantea, Capparis decidua, Cassia fistula, C. occidentalis, Chlorophytum tuberosum, Cissampelos pareira, Cocculus hirsutus, Commelina benghalensis, Datura innoxia, D. metal, Echinops echinatus, Gynandropsis gynandra, Hemidesmus indicus, Holarrhena antidysenterica, Lepidagathis trinervis, Leucas cephalotes, Madhuca indica, Mucuna prurita, Nyctanthes arbor-tristis, Nymphaea stellata, Ocimum sanctum, Plumbago zeylanica, Polygala chinensis, Tinospora cordeifolia, Wrightia tinctoria and Xanthium strumarium.

### **Gastric trouble**

Helicteres isora.

### **General debility**

Annona squamosa, Artemisia vulgaris, Asparagus racemosus, Avena sativa, Butea monosperma, Cordia macleodi, Euphorbia hypericifolia, E. thymifolia, Ocimum gratissimum, Oxalis latifolia, Pithecollobium dulce, Phoenix sylvestris, Salmaal malabaricum, Selaginella bryopteris, Sesamum indicum, Solanum indicum, Tinospora cordifolia, Trapa natans, Tribulus terrestris, Woodfordia fruticosa and Zizyphus jujuba.



**Glycosuria**

Pedaliu murex.

**Goitre**

Clitoria ternatea, Dolichos lab-lab and Lagenaria vulgaris.

**Gonorrhoea**

Acacia arabica, Butea monosperma, Cocculus hirsutus, Delbergia sissoo, Pedaliu murex, Solanum suratense and Sida spinosa.

**Hair Tonic**

Cuscuta reflexa, Eclipta alba and Emblica officinalis.

**Headache**

Acacia arabica, Actinopteris dichotoma, Annona squamosa, Ficus religiosa, Nerium odorum, Polygonum glabrum, Psidium guajava, Ricinus communis, Rosa alba, Solanum suratense, Tagetes erecta and Trachyspermum amni.

**Heart disease**

Beta velgaris, Ficus religiosa, Lawsonia inermis, Pennisetum typhoides and Terminalia arjuna.

**Hicca**

Mentha arvensis and Zingiber officinale.

**Histeria**

Cynadon dactylon.

**Hydrocele**

Mimosa pudica and Nicotiana tabacum.

**Hydrophobia**

Achyranthes aspera, Amaranthus spinosus, Capsicum annum.

Datura fastuosa and Ipomoea pestigridis.

#### Impotence

Acacia arabica, Allium cepa, Convolvulus arvensis, Pedaliu  
murex, Potentilla supina and Sida cordifolia.

#### Infertility

Cuscuta reflexa.

#### Inflammation/Burns

Ficus benghalensis and Trigonella foenumgraecum.

#### Insomnea

Solanum melongena.

#### Intestinal worms/Intestinal disorders

Aegle marmelos, Artemisia vulgaris, Asparagus racemosus,  
Azadirachta indica, Brassica Juncea, B. nigra, Butea monosperma,  
Cassia fistula, Citrus aurantifolia, Dalbergia latifolia, Nelumbo nucifera,  
Sesamum indicum and Tamirindus indica.

#### Jaundice

Anogeissus latifolia, Cordia macleodii, C. myxa, Diospyros  
melanoxylon, Lagenaria vulgaris, Momordica dioica, Ocimum gratissimum,  
Oldenlandia corymbosa, Phyllanthus niruri, Solanum nigrum, Sonchus arvensis  
and Terminalia belarica.

#### Lactation deficiency

Acalypha indica, Asparagus racemosus, Cuscuta reflexa, Euphorbia  
hirta, Hemidesmus indicus and Launaea nudicaulis.

**Laprosy**

Alectra parasitica, Celastrus paniculata, Dalbergia latifolia,  
Raphanus sativus, Terminalia belerica and Tricholepis glaberrima.

**Leucorrhoea**

Bauhinia tomentosa, Chlorophytum tuberosum, Corchorus antichorus, Cynodon dactylon, Ficus religiosa, F. rumphii, Pedaliium murex,  
Saccharum spontaneum, Saraca indica and Trapa natans.

**Liver disorders**

Banincasa hispida, Boerhaavia diffusa, Centella asiatica, Cordia macleodii, C. myxa, Ipomoea nil and Oldenlandia corymbosa.

**Marasmus**

Azadirachta indica, Launaea nudicaulis and Selaginella bryopteris.

**Measles**

Lantana camara.

**Menstrual disorder**

Martynia annua and Melia azadirach.

**Migrain**

Triticum vulgare.

**Nail disease**

Elytraria acaulis and Euphorbia antiquorum.

**Paralysis**

Amaranthus spinosus, Argemone maxicana, Convolvulus pluricaulis,  
Nicotiana tabacum, Pithecollobium dulce and Vernonia anthelminticum.

**Piles/Anal fissures**

Abutilon indicum, Achyranthes aspera, Allium cepa, Bauhinia

purpurea, B. variegata, Euphorbia thymifolia, Euigenia jambolana, Ficus religiosa, Lepidagathis trinervis, Mangifera indica, Phyllanthus niruri, P. simplex, Polygonum glabrum, Spaeranthus indicus, Tephrosia purpurea, Trachyspermum amni and Vernonia cinerea.

#### Pimples

Citrus medica, Elephantopus scaber, Mentha arvensis, Salmalia malabaricum and Sida cordata.

#### Pneumonia

Balanites aegyptica, Barlaria cristata and Cassia fistula.

#### Pyrrhoea/Tooth complaints/Scurvy

Achyranthes aspera, Calotropis gigantia, Cassia fistula, Gynandropsis pentaphylla, Nicotiana tabacum, Ocimum basillicum, Oxalis Corniculata, Phoenix sylvestris and Solanum xanthocarpum.

#### Reduce narcotic effect

Cajanus indicus and Ocimum sanctum.

#### Ring Worm/Round worm

Amaranthus viridis, Aristolochia bracteata, Beta Vulgaris, Calotropis gigantia and Lantana camara.

#### Rheumatism

Abrus precatorius, Adhatoda vasica, Allium sativum, Ammania baccifera, Andrographis paniculata, Barlaria cristata, Euphorbia thymifolia, Holoptelia integrifolia, Moringa oleifera, Nyctanthes arbortristis, Ricinus communis, Vinca rosea and Vitex negundo.

**Sciatica**

Allium sativum, Phyllanthus simplex, Ricinus communia and Zingiber officinale.

**Scrofula**

Gossypium herbaceum.

**Skin diseases**

Abrus precatorius, Acacia catechu, Acalypha indica, Alectra parasitica, Amaranthus gracilis, A. Spinousus, A. viridis, Azadirachta indica, Biophytum sensitivum, Boerhaavia chinensis, Boswellia serrata, Buchanania lanzan, Calotropis gigantia, Carica papaya, Cassia obtusifolia, C. occidentalis, Citrullus vulgaris, Citrus medica, Chorchorus fascicularis, Cleome viscosa, Commenlina bengholensis, Cuscuta reflexa, Datura innoxia, D. metel, Feronia elephantum, Ficus racemosa, Flacourtia indica, Helianthus annus, Hydrocotyl rotundifolia, Jatropha gossypifolia, Lantana camara, Lawsonia inermis, Leucus aspera, L. cephalotes, Mallotus phillipensis, Melia azadirach, Morinda tintoria, Nerium indicum, Nymphaea stellata, Orthosiphon pallidus, Phasealus tribolus, Pistia straitiotes, Pongamia pinnatam, Psoralea corylifolia, Ranunculus scelratus, Solanum nigrum, Spinacea oleracea, Tectona grandis and Trachyspermum ammi.

**Swellings**

Vitex nigundo.

**Spermatorrhoea**

Asteracantha longifolia and Nelumbo nucifera.

**Stomatitis**

Eugenia jambolana, Lawsonia inermis and Psidium guajava.

**Stone of Kidney**

Azadirachta indica, Carica papaya, Dolichos biflorus, Eugenia jambolana, Sphaeranthus indicus and Tribulus terrestris.

**Sun stroke**

Allium cepa, Cicer arietinum and Mangifera indica.

**Superficial thrombophlobitis/Thrombophlobitis**

Cajanus indicus, Capparis decidua, Plumbago zeylanica and Ricinus communis.

**Toothache**

Achyranthes aspera, Gynandropsis pentaphylla and Psidium guajava.

**Tuberculosis**

Actinopteria dichotoma and Adhatoda vasica.

**Tumor**

Boerhavia diffusa.

**Typhoid**

Diospyros melanoxylon.

**Uncounciousness**

Solanum indicum.

**Urinary Calculus**

Annona squamosa, Asteracantha longifolia, Biophytum sensitivum.

Desmodium gangaticum, Elephantopus scaber, Embllica officinalis, Mucuna prurita, Sida acuta and Zizyphus jujuba.

#### Uterus diseases

Woodfordia fruticosa.

#### Venera! diseases

Argemone maxicana.

#### Vermicidal

Helicteres isora and Trachyspermum amni.

#### Vomitting/Vomitting of blood

Adhatoda vasica, Allium cepa, Dalbergia sissoo, Euphorbia hirta, Ficus religiosa and Oryza sativa.

### D. SUPERSTITIOUS BELIEFS

The tribal people own a great number of superstitions beliefs stemmed from their age old regard for nature 'God'. Some of these superstitions are exhibited in the form of totems using a considerable number of plants viz.

Acacia arabica, Achyranthes aspera, Argemone mexicana, Calotropis gigantea, Cissampelas pareira, Clitoria ternatea, Echinops echinatus, Euphorbia hypericifolia, Ficus religiosa, Gloriosa superba, Gynandropsis gynandra, Holoptetia integrifolia, Jatropha gossypifolia, Mangifera indica, Mimosa pudica, Nerium indicum, Plumbago zeylanica, Solanum indicum, Solanum suratense. (Table 3)

### E. VETERINARY

Boils	<u>Datura metal</u> , <u>Opuntia dillenii</u>
Cold	<u>Echinops echinatus</u>
Eruption	<u>Datura metal</u>

Eye disease	<u>Curculigo orchioides</u>
Fever	<u>Crotalaria juncea</u>
Improve lactation	<u>Convolvulus arvensis</u> , <u>Peristrophe</u> <u>bicalyculata</u>
Intestinal worms	<u>Brassica campestris</u> , <u>B. nigra</u>
Khurpaka	<u>Impatiens balsamina</u>
Lice/Insects	<u>Desmodium gangeticum</u> , <u>Lawsonia</u> <u>inermis</u>
Maggots	<u>Mimosa pudica</u>
Rheumatism	<u>Gloriosa superba</u> , <u>Woodfordia fruticosa</u>
Skin disease/worts	<u>Aristolochia bracteata</u> , <u>Echinops</u> <u>echinatus</u> , <u>Tephrosia purpurea</u> .
Sores/Foot sores	<u>Eclipta alba</u> , <u>Elytraria acaulis</u> , <u>Semercarpus anacardium</u>
Stomachache/Colic/Intestinal disorders	<u>Balanites aegyptica</u> , <u>Cassia fistula</u>
Tongue disease	<u>Gloriosa superba</u>
Wounds	<u>Anona squamosa</u> , <u>Gardenia gummifera</u> , <u>Echinops echinatus</u> , <u>Elephantopus scaber</u> .

#### F. TANNIN YIELDING

Dalbergia latifolia, Terminalia ariuna

#### G. DYE YIELDING

It is recorded that Nath don't engage themselves much in dyeing but some plants are known to them for colouring cloths. Some peopel were found



using following plants for dyeing purposes.

1. Blue dye is obtained from root of Hyptis suaveolens.
2. Orange dye is obtained from ripe fruits of Mallotus philipensis.
3. Yellow dye is obtained from rhizome of Curcuma domestica.

#### H. TIMBER/FURNITURE/MUSICAL INSTRUMENTS

Acacia arabica, A. catechu, Adina cordifolia, Cassia fistula, Dalbergia sissoo, Dendrocalamus strictus, Lagenaria vulgaris, Mangifera indica, Mitragyna parvifolia, Tectona grandis, Zizyphus jujuba.

#### I. AGRICULTURAL IMPLEMENTS

Acacia arabica, A. catechu, Adina cordifolia, Anageissus lattifolia, Dalbergia sissoo, Holoptela integrifolia, Madhuca indica, Mangifera indica, Mitragyna parvifolia, Zizyphus jujuba.

#### J. WOOD CRAFT PLANTS

(Basket, Broom, Brush, Mat)

Basket of various sizes are made by sticks of Cajanus indicus, Dendrocalamus strictus, Phoenix sylvestris, Vitex negundo.

Baskets, brooms and toys are made by the leaves of Phoenix sylvestris Roots of Veteiveria zizanioides are used for making mats.

#### K. FIBRE PLANTS

Ropes are prepared from bark fibres by following beating and retting processes. Some fibre yielding plants are Crotalaria juncea, Mitragyna parvifolia The roots of Butea monosperma are used for making brushes.

#### L. WINE MAKING

The wine of Mahua (Tharra) is obtained from the flowers of Madhuca indica.

#### M. PLATE MAKING

The plates called Dauna and Pattal are made by the leaves of Butea monosperma.

#### N. OIL YIELDING PLANTS

Brassica compestris, B. junccea, Moringa olifera.

#### O. SQUASH MAKING

Squash is prepared from fruits of Citrus aurantifolia.

#### P. DETERGENT PLANTS

Butea monosperma, Sapindus trifoliatus

#### Q. PLANT USED FOR SMOKING

The dry leaves of Ipomoea aquatica are used for smoking.

#### R. FUEL PLANTS

Acacia arabica, A. catechu, Anageissus pendula, Dalbergia sissoo.

#### S. THATCHING MATERIAL

Cajanus indicus, Crotalaria juncea, Dendrocalamus strictus.

#### T. PLANT/PLANT PART(S) OFFERED TO GOD AND GODDESSES

(Table- 4 )

Aegle marmelos, Butea monosperma, Calotropis gigantia, Cucumis sativus, Curcuma domestica, Cynadon dactylon, Datura metal, Eugenia jambolana, Feronia elephantum, Ficus benghalensis, F. religiosa, Hordeum vulgare, Mangifera indica, Mitragyna parvifolia, Nerium indicum, Nymphea stellata, Ocimum sanctum, Oryza sativa, Piper bettle, Zizypus nummularia.

#### U. FESTIVAL RELATED PLANTS (Table - 5 )

Acacia arabica, Butea monosperma, Emblica officinalis, Ficus

benghalensis, Ocimum sanctum, Solanum xanthocarpum.

The categorisation of plant species has revealed that large number of plants were found to be used for curing various diseases in man or in cattles. The over all accesment of the above account has also indicated that a large number of plant which occupie foremost place are used as antidote to snakebite, scorpion sting and insect bite. Next in order the plants which are used for the treatment of skin diseases, diarrhoea & dysentery, fevers, boils, cuts/wounds, piles, cough & colds etc. as per the information gathered from the 'Nath'.

The ethnomedicinal data given in the enumeration of the plant also indicated that no one plant is administered singly for the treatment in most of the diseases. Besides, some plants are suggested to be used for the treatment of more than one diseases. Hence the number of plants used in treating various diseases comes to about 608.

It is interesting to note that a people belonmgs to 'Nath' community who live like a sant and travel from one place to another alongwith snakes and big sized flute, depend upon the snakes to earn money by making a show of snakes from the people for their lively hood have a good knowledge about the plants related with antidote to snakebite & scorpion sting. A total of about 66 plant species were found to be recorded as an antidote to snakebite & scorpion sting. These data were compared with the available litrature as mentioned in the text and found that the following plants are being reported for the first time to be used as an antidote to the snakebite and scorpion sting and therefore these plants are adjudged very important during the course of investigation.

S.No.	Plant name
1.	<u>Ageratum conyzoides.</u>
2.	<u>Andrographis paniculata.</u>
3.	<u>Azadirachta indica.</u>
4.	<u>Bidens biternata.</u>
5.	<u>Colocasia esculenta.</u>
6.	<u>Curculigo orchoides.</u>
7.	<u>Eugenia jambolana.</u>
8.	<u>Euphorbia hypericifolia.</u>
9.	<u>Ficus racemosa.</u>
10.	<u>Ipomoea aquatica.</u>
11.	<u>Ipomoea fistulosa.</u>
12.	<u>Martynia annua.</u>
13.	<u>Oxalis corniculata.</u>
14.	<u>Scirpus grosus.</u>
15.	<u>Solanum suratens.</u>
16.	<u>Tephrosia purpurea.</u>
17.	<u>Urginea indica.</u>
18.	<u>Vetiveria zizanioides.</u>

Out of the 66 plant species described and used as antidote to snakebite, scorpionsting and insect bite, it is belived within the tribe that the roots are more effective than aerial parts of a plant. The leaves come to the next category for the said purpose. (Table no. 6)

The importance of the roots of 13 plants species have been reported

by Maiti and Mishra (2000) for the treatment of snakebite and scorpion sting by the tribals of Midnapoor district of West Bengal.

The rural people. Herbalist and Vaidyas etc. have also possess a good knowldge of medicinal uses of plants and they were also found treating the skin diseases, diarrhoea, dysentery and other common and prevallent diseases of the area.

The 'Nath' and some rural people were also found using the plants for totam purposes, which can not be under estimated. These people have superstitious beliefs on the plants and they used them in the forms of totem. Such uses are still prevallent in the region and also found to be adopted by the civilized population of this educationally backword region of Bundelkhand.

It is also evident from the survey that the people belonging to 'Nath' have a good ethnomedicinal knowledge as regards to the plants used as antidotes to snakebites and scorpion stings. It also shows a corrylation between the traditional knowledge of 'Nath' and their profession. Since these people inhabit chiefly in some restricted rural pockets of Banda, Kabarai, Mahoba, Moth & Jhansi tahsils of Uttar Pradesh and Chhatarpur tahsil of Madhya Pradesh with in the region rightly come under the sociological definition of tribe. In some villages viz. Aalamkhore, Rivai, Sirsi, Ghatera, Jatara, Kadaura, Silori, Laar, Negua, Padarya, Mooraya, the 'Nath' population become well organised and found to be dependent on agriculture. they might have borrowed the traditional information about the uses of plants. It is also interisting to note that these people have a sensitive understanding of ecological interdependence and seasonal variations and know how to exploit the forest resources without distroying it. They also

follow the traditional method of conservation of many plant of the forest by their faith, folklores, totems, taboos, relegions veliefs etc. However, the change in the out look of the people of 'Nath' tribe who adopted agriculture, have also been absorbed because of their contact and interactions with the modern world. It is a good example of transition of constructive dependence to destrictive dependence on the forest in the area under study. These people exploit forest resources for their needs. This is an unfortunate and undisirable trend in them. Such situation left these people to forget and for go their traditions for their survival.

### **Environmental impact and ethnobotany :**

It is presumed that the tribals should be an inseparable part of the nature and be in complete harmony with it. But the to extremes, one of harmony and the other of consult with nature are observed. The later aspect has been observed more pronounced in the area under study where the tribal people and the rural population. has been found to be engaged in many activities like deforastation etc.

This factor leads to the creation of vast tracts of open lands most of which is used agriculturally but another vast tracts are lyined barren with bushy for no vegetaion. It is also essential to emphasise here that the 'Nath' people who adoped wandering life and dependent on snakes and herbs. the old generation only have the traditional knowledge which has solved our purpose of ethnobotanical survey.

### **Applied aspects of the present survey :**

In the modern time we have benefitted from the recent antibiotic and

synthetic drugs for the treatment of various ailments but we should not lose sight of the basic fact that the modern medicine still has not been able to replace even a small percentage of the pharmacopoeial and time honoured drugs of the herbal origin. There are few new preparations which are near combination of the old and familiar active ingredients and many of them are only chemical modification of the known therapeutic agents. The people of 'Nath' tribe of Bundelkhand region have a rich cultural heritage. They are very closely linked to the ecosystem, they live in. They commonly believe that the God 'Gorakhnath' controls the snakes and if he is pleased, snakebite can be avoided. They worshipped the God 'Gorakhnath' and use herbs for catching snakes, to prevent entry of snakes into their houses and also for the treatment of snakebite, scorpionsting and the other diseases. Thus regarding the use of plants ethnobotanical information procured through such surveys will certainly lay a sound foundation for the invention of new cheaper drugs through proper pharmacological investigations. The folk-lore other than the medicinal use must be practically applied for the betterment of the human population. It is generally found that these lores remain as lores due to ignorance and fear in the minds of common man. Besides the ethnobotanical knowledge, the cultivation of various economically important plants may also boost up the economy of the region.

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CHAPTER - VII

*Summary*



## SUMMARY

1. The thesis incorporates ethnobotanical studies of 'Nath' of Bundelkhand region, carried out during 1998-2001.
2. An introduction to the present work is given, emphasising the importance of the work.
3. The social condition of 'Nath' is briefly described to introduce the people on which the study is made.
4. A detailed review of literature on the subject of study is given, highlighting various ethnobotanical surveys done in India.
5. Methods used for the fulfilment of the objectives are given, followed by the description of the area of study including physiography, soil, climate etc.
6. Under the head of 'Enumeration of plant species', plants are described ethnobotanically highlighting their ethnobotanical uses, whether recorded through this work for the first time or recorded earlier by the workers in Bundelkhand or elsewhere in India.
7. The ethnobotanical distribution is also given with reference to India in general and Bundelkhand region in particular, along with the description of plants.
8. Under the part of discussion a detailed classified list of 272 Species, 211 Genera, 74 Family is given in tabular form showing the occurrence as well as the sources of informations of the plants (Table-1).
9. The data on occurrence of the plant species based on visual observation indicated that out of 272 plant species of ethnobotanical importance 24 plant species are rare and 13 plant species are endangered due to their over exploitation by the rural people for various purposes (Table-2).
10. The ethnobotanical observations have revealed the following important ethnobotanical uses suggested by 'Nath' and other rural people. Food, fodder, medicinal, antidote, superstitions, veterinary, tannin, dye, timber, agricultural implements, baskets etc.

11. For the sake of convenience various ethcobotanical categories of plants alongwith the number of plants used for the purpose can be summarised as under.

Ethnobotanical uses	Number of plants used
<b>A. FOOD PLANTS</b>	
Pickles	4
Condiments	1
Spices	3
Lactation inducing plants in women	6
<b>VEGETABLES</b>	
Bulb	1
Flower	2
Fruits	8
Leaves	14
Corn/Rhizome/Tuber	2
Whole plant	1
<b>WILD EDIBLE PLANT</b>	
Flower	1
Fruits	18
Rhizome	1
Seeds	6
Whole plant	1
<b>B. FODDER</b>	
Feed and Fodder for domestic animals	12
<b>C. MEDICINAL PLANTS USED FOR THE TREATMENT OF :</b>	
Abortifacient	1
Acidity	1
Abscess	1
Antidotes to Snakebite, Scorpion, Insect & Bee sting	66

Anemia	1
Asthma	13
Backache	4
Boils	28
Bone fracture	1
Brain tonic	4
Cancer	1
Candidiasis	1
Cataract	1
Cooling effect	2
Colic/Stomachache/Indigestion	12
Constipation	5
Cough/Whooping Cough/ Cold	14
Cuts/Wounds	21
Dandruff	5
Diarrhoea/Dysentery	36
Diabetes	7
Diuratic	1
Ear Complaints	9
Easy delivery	1
Elephantiasis	1
Eye diseases	12
Fever/Malarial fever	34
Gastric trouble	1
General debility	21
Glycosuria	1
Goitre	3
Gonorrhoea	7
Hair tonic	3

Headache	12
Heart disease	5
Hicca	2
Hysteria	1
Hydrocele	2
Hydrophobia	5
Impotence	6
Infertility	1
Inflammation/Burns	2
Insomnia	1
Intestinal worms/Intestinal disorders	13
Jaundice	12
Lactation deficiency	6
Leprosy	6
Leucorrhoea	10
Liver disorders	7
Marasmus	3
Measles	1
Menstrual disorder	2
Migrain	1
Nail disease	2
Paralysis	6
Piles/Anal fissures	17
Pimples	5
Pneumonia	3
Pyrrhoea/Tooth complaints/Scurvy	9
Reduce narcotic effect	2
Ring Worm Round worm	5
Rheumatism	13

Sciatica	4
Scrofula	1
Skin diseases	49
Swellings	1
Spermatorrhoea	2
Stomatitis	3
Stone of Kidney	6
Sun stroke	3
Superficial thrombophlobitis/Thrombophlobitis	4
Toothache	3
Tuberculosis	2
Tumor	1
Typhoid	1
Uncounciousness	1
Urinary calculus	9
Uterus diseases	1
Veneral diseases	1
Vermicidal	2
Vomitting/Vomitting of blood	6

#### D.SUPERSTITIOUS BELIEF (TOTEMS) RELATED PLANTS - 19 (TABLE-3)

#### E.VETERINARY

Boils	2
Cold	1
Eruption	1
Eye diseases	1
Fever	1
Improve lactation	2
Intestinal worms	2
Feet disease (Khurpaka)	1

Lice/Insects	2
Maggots	1
Rheumatism	2
Skin diseases/Worts	3
Sores/Foot sores	3
Stomachache/Colic/Intestinal disorders	2
Tongue diseases	1
Wounds	4
F. TANNIN	2
G. DYE	
Blue dye	1
Orange dye	1
Yellow dye	1
H. TIMBER/FURNITURE/MUSICAL INSTUMENTS	11
I. AGRICULTURAL IMPLEMENTS	10
J. BASKET, BROOM, BRUSH, MAT AND TOYS	6
K. FIBRE	3
L. WINE	1
M. LEAFY POTS (Dauna & Pattal)	1
N. OIL	3
O. SQUASH	1
P. DETERGENT	2
Q. SMOKE MATERIAL	1
R. FUEL	4
S. HUT MATERIAL	3
T. OFFERINGS TO GOD AND GODDESS (TABLE- 4)	20
U. FESTIVAL RELATED TO PLANTS (TABLE-5)	6

12. Of the above mentioned various uses of plants, following are the new ethnobotanical records falling into two categories :- (Refer enumeration of the plant)

(a) The plant species representing those which have been new ethnobotanical records or uses - 37.

(b) The plant species besides more popular uses, atleast one ethnobotanical use is given which is endemic to the area of study - 71.

13. Some important aspects have also come into light during the ethnobotanical observation, which are ethnically work mentioning -

(a) The tribe/rural people have been found to have a good deal of plant based information(s) practicing totems for curing the ailments (Table-3)

(b) A total number of (20 species) plant species are found associated with the religious sentiments of the tribe/local inhabitants offering them to their dieties in the form of flower, fruits or leaves (Table-4).

(c) In reference to the religious sentiments some plants (6 species) fall in the category of the sacred plants (table-5).

14. The study revealed that a total of about 66 plant species reported to have antivenom property (Table-6), these species have also been reported by earlier workers. The ethnobotanical data recorded during the course of investigation were compaired with the available literature has mentioned in the text and found that a total of about 18 plant species are being reported for the first time to be used as an antidote to snakebite and scorpion sting.

15. The relevant ethnobotanical distribution is given plant wise alongwith the ethnobotanical uses of 272 plant species (Chapter -5).

16. A general discussion is given seperately in chapter - 6 High lighting the following point.

(i) The people belonging to the Nath tribe, rural people, herbalist and medicenmen appeared more conservative while some of them seemed proved of telling the secrets known to them.

- (ii) The plant species were arranged according to the Bentham & Hooker system of the classification.
  - (iii) The plant species were also categorised in twenty one categories (Categories A to U and also point no. 11 of the above)
  - (iv) An over all assessment has also indicated that a large no. of plants occupy foremost place for curing snakebite, scorpionsting & insectbite, next in order coming those used in the treatment of skin diseases diarrhoea/dysentery etc.
  - (v) A change in the out look of the people of 'Nath' tribe has also been observed, probably due to the impact of the modern world.
  - (vi) The applied aspect of the present study has been discussed. The ethnobotanical information procured need to be investigated scientifically to invent cheaper drugs and other economic products.
17. An alphabetically, Chronologically arranged list of references is given under bibliography.
18. In support of the present findings some selected photographs have also been given in the form of plates 1 to 10.



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\*Not seen in original.

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*Plates*



**PLATE -1** A Sapera belongs to Nath community with snakes and big sized flute.

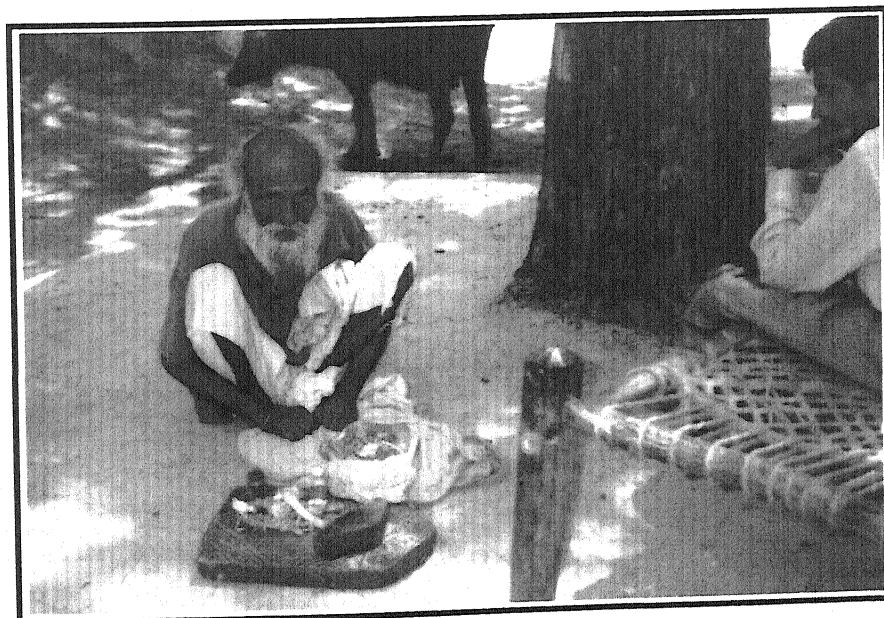


**PLATE -2** A Sapera making show of snakes.



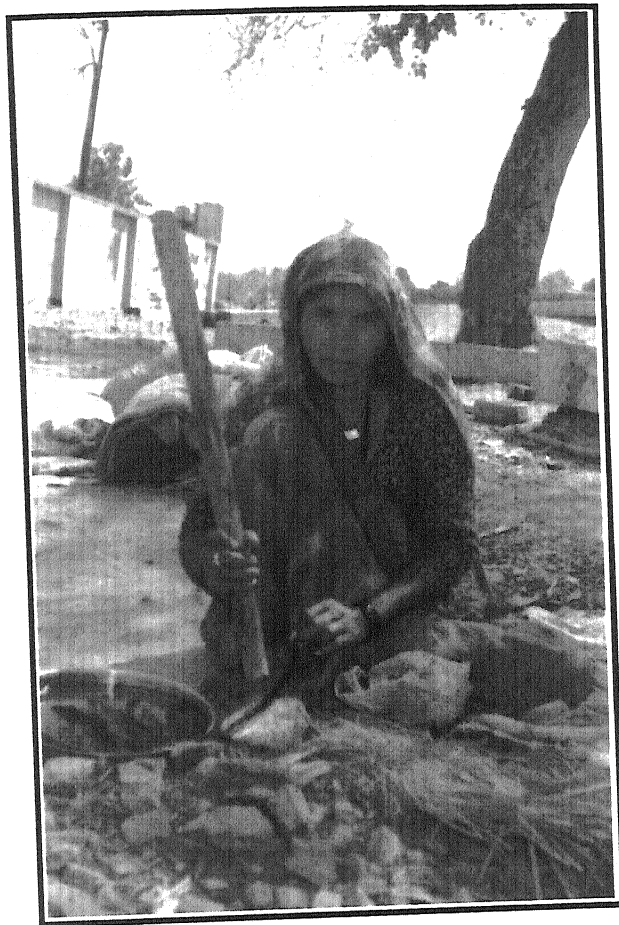


**PLATE -3** The people of 'Nath' community manufactured mats & baskets for sale.

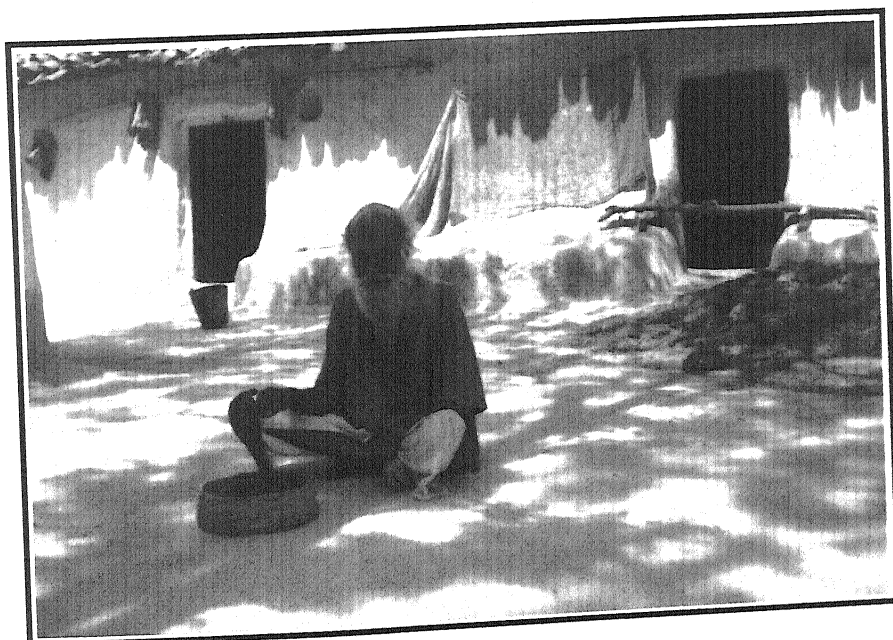


**PLATE -4** A tribal person preparing herbal medicine.





**PLATE -5** A tribal lady preparing traditional medicine (Jantra)



**PLATE -6** A poor Sapera sitting in front of his house.



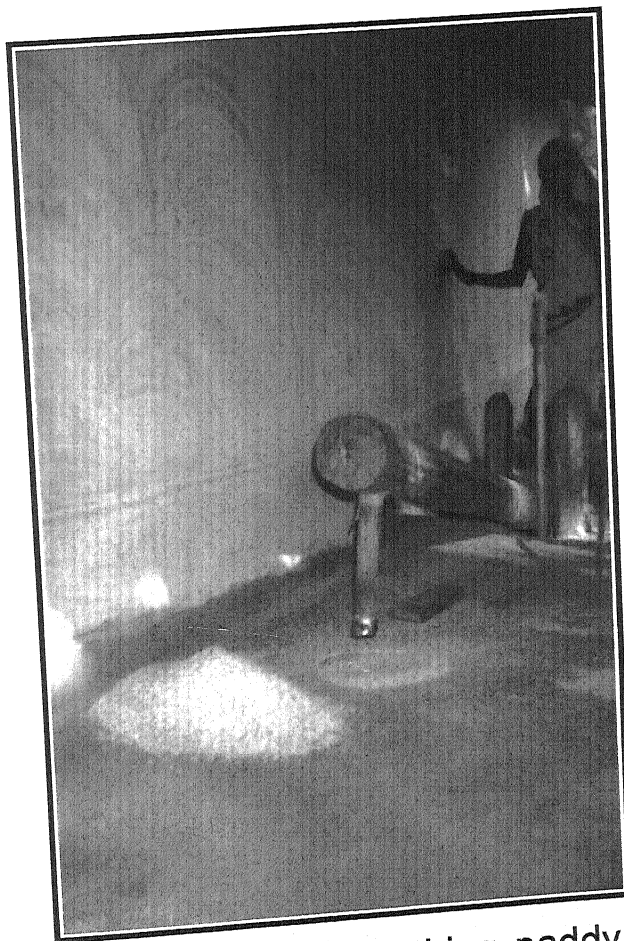
**PLATE -7** A Sapera family.



**PLATE -8** A tribal man doing bee keeping.



**PLATE -9** The people belonging to 'Nath' community are engaged in production of 'Gur'.



**PLATE -10** A tribal lady is crushing paddy by traditional method.